

# **A STUDY ON KALANJAHA PADAI**

*Dissertation Submitted To*

**THE TAMIL NADU DR.M.G.R Medical University**

**Chennai – 32**

*For the Partial fulfillment for The Award of Degree of*

**DOCTOR OF MEDICINE (SIDDHA)**

**(Branch – III, SIRAPPU MARUTHUVAM)**



**DEPARTMENT OF SIRAPPU MARUTHUVAM**

**Government Siddha Medical College**

**Palayamkottai – 627 002**

**March - 2008**

## INTRODUCTION

The skin is a protective covering of the body. It, with all its specialised derivatives makes up what is called the integument [Latin- covering], which covers the entire surface of the human body.

The human skin shows wide regional variations in structure like scalp, face, earlobes, back, palms and soles etc., In thickness of the skin the number of sebaceous glands, collagen fibre and vasculature.

Diseases of the skin are a common occurrence. About 10-20% of patients seeking medical advice suffer from skin diseases. While infections are more common in the tropics, chemical and psychogenic dermatoses are common in western countries. Diseases of the skin account for a great deal of misery, suffering, incapacity and economic loss. Besides this, they are a great handicap in society because they are visible.

According to Siddha system, our human body is made up of pancha-boothas. It leads to 96 thathuvas. The entire universe is also made up of pancha boothas. So any change in the cosmos will reflect in the human body. This was quoted in Sattamuni Gnanam by Sattamuni as follows,

அண்டத்தில் உள்ளதே பிண்டம்  
பிண்டத்தில் உள்ளதே அண்டம்  
அண்டமும் பிண்டமும் ஒன்றே  
அறிந்து தான் பார்க்கும் போதே”

- சட்ட முனி

Pancha boothas give birth to seven thathus of body. This was quoted by Thirumoolar in Thirumandhiram as,

“இரதம் உதிரம் இறைச்சி தோல் மேதை  
மருவிய வத்தி வாழும் பொடு மச்சை  
பரவிய சுக்கிலம் பாழாம் உபாதி  
உருவம் லாலுடல் ஒன்றெனலாமே”

- திருமந்திரம்

Among the pancha bootha, earth and fire together gives birth to the thathu ‘Thol’ (skin).

According to great Yugimuni, skin disorders are classified into 18 varieties. Yugi had not explained “Kalanjaga padai” as a separate disease. Instead he had made just mention in the vatha diseases as kalanjaga vatham which resembles “virpodaga kuttam”. The clinical features of Kalanjaga padai correlated with Psoriasis as described in Modern dermatology.

Siddhars had explained the line of treatment into two major modes, one is internal medicine and other is external medicine. As per the Siddha medicine, both internal and external medicines are 32 in numbers.

“வேர் பாரு தழை பாரு மிஞ்சினக் கால்  
மெல்ல மெல்ல பற்ப செந்தூரம் பாரு”

- குணபாடம் தாது வகுப்பு

From the above stanza, it is ideal to choose herbal preparations. The author had selected **Neeradimuthu Rasayanam** as internal medicine and **Aadutheendapalai vembu thylam** as external medicine.

Moreover, it is important to reduce mental stress, which is the main aggravating factor of Psoriasis. Life style modifications, Yoga therapy, transitional meditations, diet modifications etc., are given special emphasis to reduce the mental stress.

## **AIM AND OBJECTIVES**

1. To collect the various Siddha literatures and modern text books as literal evidences regarding disease “Kalanjaga padai”.
2. To expose the talent of Siddhars in diagnostic principle.
3. To know the extent of correlation of aetiology, classification, symptomatology and diagnostic methods.
4. To have an idea of an incidence of Kalanjaga padai with reference to age, sex, socio-economic status, habits, and family history related to any psychosomatic problems and paruva kaalams (Seasons).
5. To have a complete study of the disease, under the topics of mukkutram, poripulungal, udal kattugal, enn vagai thervugal etc., in order to evaluate the pathology of Kalanjaga padai.
6. To have a detailed clinical investigation and to utilize the possible diagnostic tools in the confirmation of the diagnosis and prognosis of the disease.
7. To have a clinical trial Kalanjaga padai with NEERADIMUTHU RASAYANAM as internal medicine and AADUTHEENDAPALAI VEMBU THYLAM as external application.
8. To study the biochemical analysis and pharmacological analysis of the selected drugs.
9. To highlight the factors like land where they live, climate changes, diet and mental stress of human beings. To make an awareness among the patients in order to avoid further recurrence of the disease.

## REVIEW OF LITERATURE

### SIDDHA ASPECTS

In the Siddha medicine, the pancha bootha (five elements) are elaborately described. Our body which is formed by the combination of five boothas. "Thol"(skin) is a part of Prithvi. Skin is the largest organ in our body. It has got a lot of functions, each of which is important for the normal physiological functioning of whole human body, are regulation of body temperature, excretion, protection from pathogens etc.,

According to the Siddha text "**Siddha maruthuvanga surukkam**" skin is divided in to six types. They are

- Skin containing water.
- Skin having blood.
- Skin which produces sirangu.
- Skin which produces kuttam.
- Skin producing tumour.
- Skin which produces severe pain during an injury.

Man is very much influenced by his environment. Since skin serves as a link between man and Universe, it is the first organ to be influenced by the change also, since it is related intimately to the mind, it responds even to the slightest change in mind. Any disease affecting the skin causes a socio economic problem, mental torture and social stigma to the patient.

### Definition (iyal)

Kalanjaha padai is a non contagious, non infectious, inflammatory disease of the skin characterized by well defined dry erythematous plaques with large adhered silvery or ivory mica like scales.

### Aetiology (Noi varum vazhi)

Among the available Siddha literatures only Yugi Vaithiya Chinthamani and Thirumoolar Vaithiyam are the sources of informations on aetiology and clinical features of the eighteen types of skin diseases. There is no specific obvious information about the specific factors causing Kalanjaha padai.

Thirumoolar quotes as,

“பயல் மொழியீர் திரேகத்தில் கிருமி தானே  
பரந்து திரி குட்டம் போல் புள்ளி காணும்  
மயலதுவும் கிருமியுந்தா நடந்து புக்கில்  
மேனியது சரசரென வெடித்து புண்ணாகும்”

- குரு நாடி

“குட்டமுடன் திரேகமெல்லாம் பறக்கும் போது  
குழிகுழியாய் கிருமியினால் கொள்ளும் புள்ளி”

- குரு நாடி

”கிருமியால் வந்த தோடம் பெருகவுண்டு  
கேட்கலதின் பிரிவதனை கிரமமாக  
பொருமிவரும் வாயுவெல்லாங் கிருமியாலே  
புழுக்கடிப்போல் காணுமது கிருமியாலே

செருமி வரும் பவுத்திரங்கள் கிருமியாலே

தேகமது சொறிக்குட்டம் கிருமியாலே

துருமி வருஞ் சுரோணிதங் கிருமியாலே

சூட்சமுடன் கிரிசைப்பால் தொழில் செய்வீரே”

- குரு நாடி

The text book of “Sirappu Maruthuvam” describes the following aetiological factors of Kalanjaha padai,

- பரம்பரை நோயாக மூவரில் ஒருவருக்கும் - of unknown aetiology and may be genetic

- லசன தாபிதம் - Tonsillitis
- புப்புசப் பணிகள் - Respiratory diseases
- ஒவ்வாமை - Allergic disorder
- மன உளைச்சல் - Psychological disturbances
- அதிர்ச்சி - Depression , anxiety
- காலமாறுபாடுகள் - due to changes in humidity

மேலும்,

- தாம்பிரச் செந்தூரம் ( red oxide of copper)
- இளம்பிள்ளைத் தடுப்பு மருந்து ( polio vaccine)
- குளொரோகுவின் ( chloroquine)

முதலிய மருந்துகள் குருக்களையும் படையையும் உண்டுபண்ணலாம் என்றும் கூறப்பட்டுள்ளது.

In Siddha system of medicine chronic skin diseases are brought under the clinical entity kuttam. The ancient texts describe that eighteen types of kuttam .



Thirumoolar quotes as follows:

“குட்டமது விட கரப்பான் விட நீர் சூலை  
சுரோணிதத்தால் தாது கெட்டுத் தடிப்புண்டாகும்  
மட்டறவே கிருமி சென்று மருவும் போது  
வகையாய் கிருமியுட விடநீர் சென்று  
குட்டமுடன் தேகமெல்லாம் பறக்கும் போது  
குழிகுழியாய் கிருமியினீர்க் கொள்ளும் புள்ளி  
தட்டறவே கிருமியுட நீரால் வந்த  
சகல குட்டம் விடகரப்பான் சாற்றலாமே”

“வியாதியுண் மூவாறு விளங்கிய குட்டங்கேள்  
சுயாதி கிரந்தி சுழன் மேகத்தாலுறும்  
பயாதி மண்ணுளப் பல வண்டினாலெட்டும்  
நியாதிப் புழுநாலாய் நின்றதிக் குட்டமே”

Kuttam is named a common word of chronic skin lesion as for the Siddha text books.

Agasthiar had mentioned kanmam is the main cause for kutta noi.

Kanmavaralaru (Psycho social cause)

“பழவினையால் விஷப் பூச்சி கடித்தாலும்  
பாதகர்க்கு ஒருநாளும் தீர்வதில்லை  
உளவினையாலுடாபிக் கொள்ள வந்த  
உண்மைய தறியாமல் மூர்க்கன் செய்வார்  
களவினையுள் தீர்வதில்லை கடினமெத்த  
கருணையுள்ள பூரணத்தில் கண்காட்சி  
அளவினை நீ காணுமுன்னே அகலச் சொல்லு

அடையாளம் விரல் குறுகு பின்னால் கேளே  
 விரல் குறுகும் காஅல் நிமிறும் விஷம் போலேறும்  
 பாரான தேகமெல்லாந் தடித்து காணும்  
 பாதமெல்லாம் வெடித்து மிகப் புண்ணாய் காணும்  
 சரசமுடன் சொறி கரப்பான் பிணம் போல  
 தோணுள் சாந்தையாமே விந்தை கெடுத்தடி வீங்கும்  
 நா நல்கிலிந் நோய்க்கு மருந்தயராதே  
 நல்லோரை பீடிக்குங் குஷ்டங் கன்மமாமே”

- அகத்தியர் பரிபுரணம்-400

Thirumoolar has mentioned that the skin diseases are manifested in three ways,

1. Venereal origin and other mega diseases
2. Insect bites.
3. Infections and infestations.

In Yugimuni 800 he mentions,

“ஆச்சென்ற பதினெட்டு குட்டத்தாலும்  
 அவரவர்கள் செய்கின்ற அதர்மத்தாலும்  
 தேடிச் சென்ற சிவாலயத்திலுச் சிட்டங்கள்  
 செய்தவர்கள் சிவ நிந்தை பண்ணினார்கள்  
 மூச்சென்ற பெரியோரை துடித்தோர்கள்  
 மூர்க்கமாய் அடைக்கலத்தை எடுக்கின்றார்கள்  
 ஆச்சென்ற திணையளவில் குறைந்த கூலி  
 கொடுக்கன்றோர் குட்டத்திற் கூடுவானோ”

- யுகிமுனிபெருநூல் 800

Yugimuni strongly described only psycho-social factors are the main causes. They are stress inducing factors. He has attributed the following causes.

- Misbehavior in the temple.
- Sacrilege towards God.
- Humiliating the elders.
- Breach of trust.
- Paying low wages to workers.

The main factors behind the reasons are manifestation of stress which can be considered as precipitating factor. The psychic tranquility of the individual depends upon the harmony of social movements.

Hereditary also plays an important role in breeding Kalanjaha padai which appear in generations affecting several siblings and in such families the condition tends to be severe and persistent.

In **Yugi Chinthamani**, among the eighteen types of skin disease three types seen to be variants of Kalanjaha padai. But no description is available in the Siddha classics under Kalanjaha padai.

Out of the eighteen types of kuttam, 3 types have similarities with Kalanjaha padai and out of this three, one type is closely related with Kalanjaha padai.

## CLINICAL FEATURES

### Thethuru kuttam

“சர்மந்தான் சிவப்பாக வட்டணித்துச்  
சலவை போல வெளுக்கும் தினவுண்டாகும்  
கூர்மந்தான் ரோமமது மிகவுண்டாகும்  
மயிரெல்லாஞ் சுருண்டுமே உருண்டையாகும்  
கர்மந்தான் பித்த சேடும மிகுக்கும்  
காயந்தான் கதித்துமே திமிருண்டாகும்  
தர்மந்தான் சடமெல்லா மூதலாகும்  
தாக்கான தேத்திருக் குட்டந்தானே”

- யூகிமுனி பெருநூல் 800 முதல்பாகம்

Under Thethuru kuttam, annular erythematous lesions with the appearance of washed leather are described. Itching, oedema of the body and plugging of hairs are the characteristical clinical features of this entity.

### Kajasarma kuttam

“தானாகச் சடந்தானு மிக கறுப்பாகும்  
சடமெங்குந் தோலுரியும் சிவப்புமாகும்  
வேனாக வறவறெனத் தானிழுக்கும்  
வெடிக்குமே சொறிச்சலாய்த் தினவுண்டாகும்  
தானாகச் சர்மக் குட்ட மிதிலுண்டாகும்  
கடினமாய் கால் விரல்கள் கனப்புண்டாகும்  
கூனாக தேகமெல்லாம் வலியெடுக்கும்  
குறியான கசசர்ம குட்டந்தானே”

Blackish discolourations of the body, itching, oedema of the toes are indicated.

## Virbodaga kuttam

“புதுமையாய் சரீரமெங்கும் தினவுண்டாகும்  
பொருவெடியாய் திக்கென தீக்கொழுந்து போல  
மெதுமையாய் விட்டெரியும் நல்லபாம்பின்  
விஷப்படம் போல் தடித்து வெளுப்புமாகும்  
சுதுமையாய் மிகச் சொரியுஞ் சிவப்புமாகும்  
தூக்கமொடு சஞ்சலமும் மிகவுண்டாகும்  
கதுமையாய் தோலெல்லாம் தடிப்புண்டாகும்  
கனத்த விற்போடகமான குட்டந்தானே”

An Erythematous lesion in the skin with plaques of silvery scales is described. The lesions are described to be extensive. Usually these entities are associated with anxiety and despair.

The oedema and plugging of hairs are not noticed in practice as it is in the case of **Thethuru kuttam**.

The blackish discolouration of the body, oedema of the toes is noticed in practice as in Kajasarma kuttam. It is seen only in the complication stage of Kalanjaha padai.

So the clinical features of Virbodaga kuttam are ascertained to be closely to Kalanjaha padai.

In the text Siddha Maruthuvam Sirappu authored by Sri. Dr. R. Thiagarajan, clinical features are described as,

- The skin lesions are red in colour with raised margins and white ivory or silvery rough thick scales, on removing the scales pin point blood-stained spots occurs.
- The lesions vary in size either thin or thick layers.
- In children these lesions may be like water drops.
- In severe cases lesions occur in the face, scalp and sometimes all over the body.

#### **IN A CHRONIC CASE:**

- The skin lesion occurs in the extensor aspect of forearm.
- In some cases these lesions appear over the palms and soles.
- In some cases these lesions appear all over the body.
- The lesions are coin shaped and there may be small pus formed lesions are found.
- In obese women, the lesions may occur over navel, inguinal region and axilla with discharge. Due to sweating, itching may be associated. The borders of the lesions are not to be demarcated clearly.
- One fourth of the patients have lesions over nails which are pink coloured and associated with ridges.
- 7 % of the patients have associated joint involvement which will manifest as

#### **Psoriatic Arthropathy.**

## ARTHROPATHY

If the patient suffers from repeated episodes of Kalanjaha padai it may be associated with painful joints known as Kalanjaha vatham.

“Yugimuni” describes the clinical features of “**Kalanjaha vatham**” as follows,

“வாதமாங் கால் கையில் குரங்கிரண்டும்.

வருத்து சந்து முறுக்கியே குடைந்து நொந்து

நாதமா நடைதானுந் தான் கொடாமல்

நலிந்துமே முடமாகி கரடு கட்டி

சேதமாஞ் சடந்தானு மிக வெளுத்துத்

தினவொடு சிரங்குமாய் சேட்பமாகி

காதமாயருசியோடு மயக்கமாகும்

கருதிய காளாஞ்சகமாம் வாதமாமே”

- யூகி வைத்திய சிந்தாமணி பாடல் - 259

## NOI KANIPPU (Diagnosis)

Piniyari muraimai is a method of diagnosing a disease. It is based upon three main principles. They are,

- Poriylarithal (Inspection)
- Pulanalarithal (Palpation)
- Vinathal (Interrogation)

Physicians 'pori' and 'pulan' are used as tools for examine the 'pori pulan' of the patient. The above principles correspond to the methodology of 1. Inspection, 2. Interrogation 3. Palpation in modern medicine, in arriving a clinical diagnosis of the disease.

## **1. PORIYALARITHAL**

Pori is considered as the five senses of perception namely,

- Nose
- Tongue
- Eye
- Skin
- Ear

'Poriyalarithal' is examining the pori of the patient by the physician for diagnosing.

## **2. PULANALARITHAL**

'Pulan' is five object of senses. They are

- Smell
- Taste
- Vision
- Sensation to touch
- Hearing

'Pulanalarithal' means examining the 'pulan' of the patient by the physician for diagnosing purpose

## **3. VINATHAL**

Vinathal is gathering the informations regarding the history of the disease, its clinical features etc., from the patient or his immediate relatives who are taking of him, when the patient is not in a position to speak or the patient is a child.



## ALAVAIGAL (logics)

Alavaigal are used in clinical diagnose of a disease

“அளவை காண்டல் கருதல் உரை அபாவம் பொருள் ஒப்பாறென்பர்

அளவை மேலும் ஒழிபுண்மை யைதிகத் தோடியல் பென நான்

களவை காண்பர் அவையிற்றின் மேலும் அறைவர் அவையெல்லாம்

அளவை காண்டல் கருதல், உரை என்னும் மூன்றிலடங்கிடுமே”

- சிவசித்தியார் அளவை எண் 6

Alavai divided in to ten types. They are,

- |                            |   |               |
|----------------------------|---|---------------|
| • Observation              | - | காண்டல்       |
| • Inference                | - | கருதல்        |
| • Authority, Literature    | - | உரை           |
| • Preception               | - | அபாவம்        |
| • Presumption              | - | அருத்தப்பத்தி |
| • Comparison               | - | உபமானம்       |
| • Inference by elimination | - | பாரிசேஷம்     |
| • Probability              | - | சம்பவம்       |
| • Tradition                | - | ஐதிகம்        |
| • Natural Inference        | - | இயல்பு        |

The above mentioned "ten alavaigal" are included in three alavaigal.

They are,

- **Kaandal (Inspection by Siddha method)**

Through 'kaandal' the physician can directly see the patient, hear all the complaints and at length concludes a diagnosis.

- **Karuthal (Through Siddha Investigation)**

Through envagai thervu and neerkuri as well as neikuri, we can diagnose a disease by karuthal.

- **Urai (Text's evidence - Siddhar's)**

Comparative study of the signs and symptoms of the patient with the reference of books and come to a diagnosis.

### **Ennvagai thervugal (eight diagnostic tools)**

Siddhars have developed a unique method of diagnosing the disease by “Enn vagai thervugal’

“நாடி ஸ்பரிசம் நா நிறம் மொழி விழி

மலம் மூத்திரமிவை மருத்துவராயுதம்”

- நோய் நாடல் நோய் முதல் நாடல் (முதல் பாகம்)

“மெய்க்குறி நிறம் தொனி விழி நா இருமலம் கைக்குறி”

- தேரையர்

Hence the diagnosis is made by the following

- |                                  |                      |
|----------------------------------|----------------------|
| 1. Naadi (Pulse)                 | 5. Mozhi (voice)     |
| 2. Sparisam (sensation to touch) | 6. Vizhi (eyes)      |
| 3. Naa (tongue)                  | 7. Malam (Faeces)    |
| 4. Niram (colour)                | 8. Moothiram (Urine) |

## Kalanjaha padai in relation with envagai thervugal

### 1. Naadi (pulse)

உடலில் உயிர் தரித்திருப்பதற்குக் காரணமான சக்தி எதுவோ,  
அதுவே தாது அல்லது நாடி எனப்படும்.

“நாடி என்றால் நாடியல்ல, நரம்பில் தானே  
நலமாகத் துடிக்கின்ற துடிதானுமல்ல  
நாடி என்றால் வாத பித்த சிலேற்பனமுமல்ல  
நாடி எழுபத்தீராயிரந் தானுமல்ல  
நாடி என்றால் அண்ட பேரண்டமெல்லாம்  
நாடி எழுவகைத் தோற்றத்துள்ளாய் நின்ற  
நாடியதுயா ராய்ந்து பார்த்தாரானால்  
நாடியுறும் பொருள் தெரிந்து நாடு வாரே”

- பதினெண் சித்தர் சதக நாடி நூல்

Naadi is responsible for the existence of life and can be felt one inch proximal to the wrist on the radial side by means of palpation with the tips of index, middle and ring fingers corresponding vatham, pitham and kabam respectively.

The three humours vatham, pitham and kabam exist in the ratio 1:1/2:1/4 normally. Derangement in these ratios leads to various disease entities.

The three "Uyir thathukal" are formed by the combination of three nadigal with three vaayu.

- |                        |   |        |
|------------------------|---|--------|
| • Idakalai + Abanan    | - | Vatham |
| • Pingalai + Piranan   | - | Pitham |
| • Suzhimunai + Samanan | - | Kabam  |

In Kalanjaha padai the following types of naadi were observed.

They are,

- a. Vatha kabam and
- b. Pitha kabam

## **2. Sparisam (sense to touch)**

This reveals about the warmth, chillness, dryness, roughness of the skin, oozing, sweating, tenderness, fissures, depigmentation changes in the skin, swelling, emaciation, etc.,

In Kalanjaha padai thickness, roughening, dryness, pin point bleeding, silvery or mica like or ivory colour dry scales in skin may be noticed.

## **3. Naa (Tongue)**

The colour, dry or wet, coated or not, excessive salivation, redness, ulceration, fissure, pallor, yellowish discolouration, any malignant outgrowth, predominant taste in tongue, speech and deviation of the tongue, along with the conditions of the teeth and gums are to be noted.

In Kalanjaha padai, tongue coating like flour (மாபிடிவு) may be noticed in some cases may be due to habitual constipation.

## **4. Niram (colour)**

Changes in the colour of the skin, teeth, eyes, nails and lips due to vatham, pitham, kabam, hypo and hyper pigmentation are to be noted. In Kalanjaha padai, erythematous lesions, pin point bleeding after removing the scales may be noticed.

## **5. Mozhi (voice)**

Examination of mozhi includes clarity of speech any speech disturbances, crying, high or low pitched voice, slurring or incoherent speech, scanning speech, talk included by hallucination, undue argument, breathlessness, nasal or hoarseness of voice, wheezing. In Kalanjaha padai no change is seen regarding speech.

## **6. Vizhi (eyes)**

The motor and sensory activities are to be noted. Also any abnormal colour change indicating vatham, pitham, kabam and mukkutram. Hyperemia, ulceration, bluish discolouration, response of pupil, pallor, protrusion, sunken eyes, sharpness of vision, excessive lacrimation, angle of eye, subconjunctival bleeding, visual disturbances are to be noted. In Kalanjaha padai burning sensation was reported in some cases.

## **7. Malam (faeces)**

Colour, froth, solidity, semisolid or liquid quantity, odour, frequency, constipation, presence of mucus, blood and undigested matter in the stool are to be studied. In some of the cases of Kalanjaha padai habitual constipation was reported.

## **8. Moothiram (urine)**

Collection of urine for the determination of neerkuri and neikuri is a special diagnostic method.

## Neerkuri and Neikuri

“அருந்து மாறிரதமும் அவிரோமதாய்  
அஃகல் அலர்தல் அகாலவூன் தவிர்ந்தழற்  
குற்றள வருந்தி உறங்கி வைகறை  
ஆடிக் கலசத் தாவியே காதுபெய்  
தொரு முகூர்த்தக் கலைகுட் படுநீரின்  
நிறக்குறி நெய்க்குறி நிருமித்தல் கடனே”

- சித்த மருத்துவாங்க சுருக்கம்

Prior to the day of urine examination the patient was instructed to take a balanced diet and quantities of food must be proportionate to his routine in take. The patient could have no disturbed sleep. After waken up in the morning, the first urine voided was collected in a clear wide mouthed glass container and is subjected to analysis of "neerkuri and neikuri" with in one and a half hour. Then neerkuri is to be found out by,

## Neerkuri

“வந்த நீர்க்கரி யெடை மணம் நுரை எஞ்சலென்  
றைந்திய லுளவை யறைகுது முறையே”

- சித்த மருத்துவாங்க சுருக்கம்

## Voided urine has the following characters:

- Niram : Colouration
- Edai : Specific gravity
- Manam : Smell
- Nurai : Frothy nature
- Enjal : Quantity of urine voided

Apart from these, the frequency of urination, abnormal constituents such as protein, presence of blood, pus, renal calculus, crystals etc., also to be found out.

In Kalanjaha padai patient, straw or hey coloured urine is noticed. Scanty micturition can be noted in some cases.

### **Neikuri:**

The speciality of neikuri is stated in the following verse:

“ஐக்குறி கொடுவட வானிழ லமர்ந்தோர்  
கைக்குறி தெரிந்த நங் கடவுளைத் துதித்தே  
மெய்குறி நிறந்தொனி விழி நாவிருமலம்  
கைக்குறி முழுவதூ உங்கற்றார் தம்மினும்  
பொய்க்குறி மெய்குறி புகலுமெ வர்க்கும்  
நெய்க்குறி யதனை யிந்நீணிலந்து ரைப்போம்”

-சித்த மருத்துவ நோய் நாடல் நோய் முதனாடல்திரட்டு

The collected specimen as said above is to be analysed by following method. The specimen is kept open in a glass dish or china clay container. It is to be examined under direct sunlight, without shaking of the vessel. Then add one drop of gingelly oil at a distance of 1/2" or 3/4" height observe keenly the direction it spreads with in few minutes, and conclude the diagnosis as follows:

“அரவென நீண்டி னஃதே வாதம்

ஆழிபோற் பரவின் அஃதே பித்தம்

முத்தொத்து நிற்கின் மொழிவ தென் கபமே

அரவில் ஆழியும் ஆழியில் அரவும்

அரவில் முத்தும் ஆழியில் முத்தும்”

- சித்த மருத்துவ நோய் நாடல் நோய் முதனாடல் திரட்டு

Oil spreads like a snake

Vatha neer

Oil spreads like a ring

Pitha neer

Oil kept remaining as such and

Floating like a pearl

Kaba neer

Ring in the snake

snake in the ring

pearl in the snake

pearl in the ring

Thontha Neer

### Paruvakaalam (season)

The whole year is constituted by 6 seasons .They are

1. Karkaalam - Aavani- purattasi - August - September
2. Koothir kaalam - Iyppasi -karthigai - October - November
3. Munpani kaalam - Markazhi- Thai - December -January
4. Pinpani kaalam - Masi- Panguni - February- March
5. Elavenil kaalam - Chithirai - Vaigasi - April- May
6. Mudhuvenil kaalam - Aani - Aadi - June - July

In each and every season, routine changes will occur in the land, normal biological functions of individual, living things, plants, animals, human beings,



which will modify the normal physiology and make them susceptible to certain specific disease.

Kabam gets thannilai valarchi in pinpani kaalam and Vetrunilai valarchi in Elavenil kaalam. Pitham gets Thannilai valarchi in Kaar kaalam and Vetrunilai valarchi in Koothir kaalam, Vatham gets Thannilai valarchi in Mudhuvenil kaalam and Vetrunilai valarchi in Kaar kaalam.

### **Nilam (land)**

It is divided in to five types

<b>S. No</b>	<b>Nilam</b>	<b>Land Area, it concerns</b>
1.	Kurinci	- Mountain region and surroundings
2.	Mullai	- Forest regions and surroundings
3.	Marutham	- Cultivating regions and surroundings
4.	Neithal	- Sea and Coastal regions
5.	Palai	- Desert land only

### **Udal kattugal.**

Our body consists of seven udal kattugal, gives strength and structure to our body.

<b>S.No</b>	<b>Udal Kattugal</b>	<b>Functions</b>
1	Saaram	It gives strength to the body and mind
2	Senneer	Saaram after absorption is converted into senneer. It is responsible for knowledge, strength, boldness and healthy complexion.

3.	Oon	Gives structure and shape to the body and is responsible for the movements of the body.
4.	Kozhuppu	Lubricates the organs and proceed on its own works.
5.	Enbu	Protects the vital organs and used for movements and nominates body structure.
6.	Enbu Moolai	Present inside the bones and it gives strength and maintains the normal condition of the bone.
7.	Sukkilam / Suronitham	Responsible for the reproductive function of species.

In the case of Kalanjaha Padai, out of seven udalkattugal saaram, senneer and enbu are commonly affected.

Saaram : Dryness, roughness, tiredness

Senneer : Dryness, Paleness of the skin

Enbu : Pain in the knee joints

### **MUKKUTRAM**

Human body is influenced by Thridoshas (ie) Vatham, Pitham and Kabam. They are responsible for normal physiological condition of the body.

## VATHAM

Vatham is a kinetic energy which influences all motions.

Vatham is located in the abanan, faeces, idakalai, spermatic cord, iliac bone, skin, nerves, joints, hair follicles, muscles, bone, ear and thigh.

S. NO	Name	Location	Physiological Functions
1	Piranan	Heart and Lower respiratory tract to Upper respiratory tract.	Controls knowledge, mind and five objects of sense, useful for breathing
2	Abanan	Lower abdomen and extremities	Responsible for urination, expels faeces, delivering foetus, discharge sperm and menstruation.
3	Viyanan	Mainly at heart	Responsible for movements of all parts of the body and used to feel the sensation
4	Uthanan	Chest	Responsible for vomiting, cough, hiccough, sneezing.

5	Samanan	Stomach	Aids for proper digestion. It controls the activity of other vaayus.
6	Naagan	Eyes	Responsible for opening and closing of the eyes.
7	Koorman	Heart and Eyes	Responsible for vision and yawning and controls lacrimation
8	Kirukaran	Throat	Responsible for salivation nasal secretion and appetite
9	Thevathathan	Eruvaai& Karuvaai	For laziness, sleeping and anger
10	Thananjeyan	Nose	Responsible for bloating of the body after death. It escapes on the third day after death, through the cranium when it bursts.

In the case of Kalanjaga padai,

- |         |   |  |
|---------|---|--|
| Abanan  | : | Habitual constipation                              |
| Viyanan | : | Erythematous plaques in the affected areas of skin |
| Samanan | : | Due to other vaayus, it is affected                |
| Koorman | : | Insomnia like condition                            |

The above vaayus are affected commonly.

### **PITHAM:**

Pitham is responsible for all the transformation. Pitham is located in urinary bladder, heart, head, pingalai, umbilicus, abdomen, piranan, blood, sweat, skin and eye.

Pitham is classified into 5 types. They are,

1. Analaga pitham : Responsible for digestion of food
2. Ranjaga pitham : Responsible for colour of blood
3. Sathaga pitham : Located in heart and is responsible for normal activities of the body
4. Aalosaga pitham : Responsible for normal vision
5. Prasaga pitham : Responsible for the complexion of skin

In the case of Kalanjaha padai,

1. Ranjagam : Paleness of the skin, conjunctiva and tongue
2. Sathagam : Difficulty to do the routine works properly and sluggishness
3. Pirasagam : Dryness and Roughness of the skin.

## **KABAM:**

Stabilizes, maintains and lubricates all movements.

Kabam is found in samanana, semen, brain, head, tongue, nose, bones, bone marrow, fat, nerves, chest, blood, large intestine, eye, stomach and pancreas.

Kabam is classified into 5 types, they are,

1.   Avalambagan       :     Heart is the centre for avalambagan. It controls all other forms of kabam
2.   Kiletham         :     Stomach is the centre for kiletham. It gives moisture and softness to the ingested food, and helps for digestion.
3.   Pothagam         :     Tongue is the centre for pothagam and it is responsible for the sense of taste
4.   Tharpagam        :     Head is the centre for tharpagam. It gives cooling effect to eyes
5.   Santhigam        :     It lies in the joints and is responsible for the locomotive action of movable bony joints.

In the case of Kalanjaha padai,

Tharpagam   :     Burning sensation in the eye

Santhigam   :     Pain in kneejoints, elbow and inter phalangeal joints.

## **UDAL VANMAI (Body Immunity)**

The Udal Vanmai is classified into 3 types. They are,

- Iyarkai Vanmai
- Seyarkai Vanmai
- Kaala Vanmai

## **IYARKAI VANMAI**

Natural immunity of the body itself by birth.

## **SEYARKAI VANMAI**

Improving the health by intake of nutritious food materials, activities and medicines.

## **KAALA VANMAI**

Development of immunity according to age and the environment.

When Udalvanmai is affected there may be a possibility of Kalanjaha Padai.

## **Line of treatment**

In accordance with the Siddha system of medicine, certain basic principles are developed before starting the specific drug therapy. These procedures are initially followed to balance, the deranged kutrams ie. Vatham, pitham and kabam. They are purgation, vomiting and application of drugs on the eyes to balance the deranged vatham, pitham and kabam respectively. This can be understood by the following verbs,

“விரேசனத்தால் வாதம் தாழும்  
வமனத்தால் பித்தம் தாழும்  
அஞ்சனத்தால் ஐயம் தாழும்”

In addition to this following medications are practiced in the Siddha system.

- Aha marunthugal (Internal medicines)
- Pura marunthugal (External medicines)
- Restriction regarding food habits and routine day to day life style.
- Sirappu Maruthuvam - a special feature of Siddha medicine

like Pranayamam, Yoga.

- **AHA MARUTHUVAM :**

These are to administer rejuvenating drugs adopted for every one healthy life **Neeradimuthu Rasayanam -500mgs** two times a day with hot water.

- **PURA MARUTHUVAM:**

**Aadutheendapalai vembu thylam** - applied as an external application

### **Restriction Regarding Food and Habits**

#### **1. Avoid Karappan food Items**

“பெருகுஞ் சோள மிறுங்கும் பெரும் கம்பு  
வரகு காருடன் வாழையின் காயொடு  
உரை கொள் பாகற் கெளிற்று மீன் உண்டிடில்  
விரிவதாய் கரப்பானு மிகுந்ததே”

- பதார்த்த குண சிந்தாமணி



2. Avoid bitter guard, guava, egg, fish, chicken
3. Obese must be restricted.
4. Avoid alcohol, smoking etc.
5. Should not be mentally stressed and strained
6. Since it is a chronic and not a life threatening disease, it should not be loaded with heavy drugs.
7. The medications should calm the mind just free from stress and strain
8. The patches should be washed with lukewarm water, to remove the scales everyday early morning. After the bath, external applications are to be applied there after.

### **SPECIAL NON - DRUG THERAPEUTICS**

Several special medicaments of non-drug therapeutics like Yoga, Pranayamam, Asanas, Kalpa medicines are employed in Siddha system. These are employed during diseased state and for the prevention of diseases during healthy days.

In Kalanjaha padai, patients are also advised to follow Pranayamam, Yoga and Asanas for the early cure, in order to avoid the remissions and exacerbation of this disease.

### **PRANAYAMAM**

It is a form of Kayakalpa method. By practicing this one can prevent any disease. This is explained in the following verse,

“ஏற்றி இறக்கி இருகாலும் பூரிக்கும்  
காற்றைப் பிடிக்கும் கணக்கறி வாரில்லை  
காற்றை பிடிக்கும் கணக்கறி வாளாக்கு  
கூற்றை உதைக்கும் குறியதுவாமே”

## **YOGA:**

Yoga is maintained by the body in a particular posture for a particular period of time. This is totally different from the ordinary exercise. Yoga vitilises, both physical body and the mental set-up unlike exercise which tones only the muscles.

The common benefits are,

- It tones the internal organs
- It prevents obesity and disease
- It maintains normal circulation to all the organs of the body.
- It is very safeguard for all the vital organs.
- It avoids laziness, enhances pure mind and cleverness and memory power.

There will be no problems like psychomotive disturbances if practised daily.

## **ASANAS**

**Regarding skin disease the following Asanas can be adviced**

1. பத்மாசனம்
2. சர்வாங்காசனம்
3. பூரண சுவசாந்தி ஆசனம்

### 1. பத்மாசனம்

சமதளத்தில் சம்மணமிட்டு உட்கார்ந்து வலப்பாதத்தை இடத் தொடை மீதும், இடப்பாதத்தை வலது தொடை மீதும் ஏற்றி இரண்டு கைகளையும் முன் புறம் ஒன்றன் பின் ஒன்றாக கோர்த்து மலர்ந்திருக்குமாறு இருத்தல், இதனால் உடல் நலமும் மன மகிழ்ச்சியும் ஏற்படும்.

### 2. சர்வாங்காசனம்

மல்லாந்து படுத்து கால்களை மெதுவாக ஒட்டியபடியே மேலே தூக்கிப் பின் புட்ட பாகத்தையும், இடுப்புப் பாகத்தையும் மேலே தூக்கிக் கைகளால் முதுகுப் புறத்தில் தாங்கி நின்றல்.

நரை, திரை, மூப்பு மாறி இளமையுண்டாகும்.

வீதனகோளம் தூண்டப்படுகிறது.

உடலின் எல்லா உறுப்புகளும் பலப்படும்.

### 3. பூரண சவசாந்தி ஆசனம்

மல்லாந்து படுத்துக் கால்களை நேராகவும், கைகளை உடலோடு பக்கவாட்டிலும் வைத்து நேராகப் படுத்து இருத்தல்.

இது களைப்பைப் போக்கும். புத்துணர்ச்சியை உண்டாக்கும்.

### PATHIYAM

Disease mainly occur due to wrong diet habits. Siddhars stressed this in every aspect of treatment and prevention from further occurrences. This view is well understood in this verse.

“மருந்தென வேண்டாவாம் யாக்கைக்கு

அருந்தியதுயற்றது போற்றி யுணின்”

- குறள்

During diseased states, diet restrictions or pathiyam are strictly to be followed. These are to be administered to normalize the deranged doshas and for the good manifestation of given medicines to be more effective. This is given in the verse,

“பத்தியத்தினாலே பலன் உண்டாகும் மருந்து  
பத்தியங்கள் போனால் பலன் போகும் - பத்தியத்தில்  
பத்தியமேவெற்றி தரும் பண்டிதர்க்கு - ஆதலினால்  
பத்தியமே உத்தியென்று பார்”.

- தேரையர் வெண்பா

So it is very essential to adhere pathiyam strictly for the early cure of the disease.

## DIET

Food habits that reduce the vatha, pitha, kaba to the normal level has to be taken. Patients are strictly convinced to avoid all the non-vegetarian items except goat's flesh. Avoidence of the following food items were also strictly advised.

- |                    |   |                                |
|--------------------|---|--------------------------------|
| • Agathi Keerai    | - | Leaves of sesbania grandiflora |
| • Seeni avaraikai  | - | Cynampsis psoratoïdes          |
| • Pagarkai         | - | Bitter guard                   |
| • Poosanikai       | - | Great pumpkin                  |
| • Perum payaru     | - | Cow – gram                     |
| • Solam            | - | Maize                          |
| • Kanam            | - | Horsegram                      |
| • Motchai          | - | Flac bean                      |
| • Elumichan pazham | - | Lemon (citrus medica)          |

# **MODERN ASPECT**

## **SKIN**

### **ANATOMY**

The skin is a large organ of the human body. Forming a major interface between man and his environment. It covers an area of approximately  $2\text{m}^2$  and weighs about 4kg. The structure of human skin is complex consisting of a number of layers and tissue components.

The superficial epithelial layer – EPIDERMIS

Underlying connective tissue layer – DERMIS or CORIUM

Subcutaneous layer – HYPODERMIS

#### **Epidermis**

The epidermis is formed of non vascular stratified epithelium. Its usual thickness is between 0.07mm and 0.12mm. It is divisible into two main systems,

1. Keratinising or malphigian systems which forms the bulk.
2. Pigmentary system produces pigment.

Epidermis composed of the following layers from base to the surface.

#### **1. Stratum Germinatum (Basal cell layer)**

This is the deepest portion of the epidermis and consists of a single layer of keratinocytes.

#### **2. Stratum malphigii (Prickle cell layer)**

This layer is composed of several layers of polygonal prickly cells, which possess tonofilament contain PAS positive material that is precursor of keratin.

### **3. Stratum Granulosum (Granular cell layer)**

This layer consists of 1 to 3 layers of flat cells containing keratohyaline basophilic granules which are PAS negative.

### **4. Stratum lucidum**

It is a pale wavy looking layer, formed by many layers of flattened and closely packed cells devoid of nuclei.

### **5. Stratum corneum (Horny layer)**

Most superficial layer, consists of many layers of non-nucleated flattened cornfield cells.

### **Dendritic cells of epidermis**

These are melanocytes, langerhans cells and indeterminate cells.

### **Basement Membrane**

The junction of the epidermis and dermis is formed by basement membrane. It allows movement of cells and nutrients between the dermis and epidermis.

### **Dermis**

The dermis consist of 2 parts,

1. Superficial papillary dermis
2. Deeper reticular dermis

The dermis is composed of fibro collagenic tissue containing blood vessels, lymphatics and nerves. Besides these structures, dermis contain appendages or adnexal structure

## **DERMAL APPENDAGES**

### **1. Sweat glands**

These are of 2 types:

Eccrine and Apocrine.

#### **Eccrine glands**

They are coiled tubular glands distributed all over the skin except on the beds of nails, margins of lips and the glans penis. But are most numerous in the palms, soles and axillae.

#### **Apocrine glands**

They are tubular glands with large lamina. They occur in the axillae, areola and nipples of breasts, umbilicus, the anus and the genitalia. Their secretion is odoriferous with a secondary sexual significance.

### **2. Sebaceous glands**

They are scattered all over the integument except palms and soles. Meibomian gland, mammary glands and smegma glands of the penis are modified sebaceous glands.

### **3. Hair**

Hair is found on every part of the body except on the palms and the soles, the dorsal surface of the terminal phalanges, lips, inner surface of the labia, inner surface of the prepuce and the glans penis.

A hair is composed of a root, the part embedded in the skin and a shaft the portion projecting from the surface. Hairs differ in length, thickness and colour in different parts of the body and in different races.

#### **4. Nails**

The nails are thickness of the deeper part of the stratum corneum. The nail is composed of keratinised clear horny cells.

#### **Blood vessels:**

The blood supply of the skin originates from a large number of anterior forming anastomosis in the deepest part of the cortex. From here single vessels run upwards and from a second network in the upper cortex. Finally terminal arterioles ending in capillary loops, which drain into connecting venules. The blood is returned to the large veins in the subcutaneous tissue.

#### **Lymphatics:**

The skin contains a rich network of lymphatics, which drain into a few large vessels in the hypodermis.

#### **Nerve Supply:**

The nerve supply of the skin consists of a motor sympathetic portion derived from the sympathetic ganglia and sensory spinal portion arising from the dorsal root ganglia. The sympathetic fibers innervate the blood vessels, erector pilorum muscles and apocrine duct.



## Physiological Functions of the Skin

Function	Structure/cell involved
<b>Protection against:</b> Chemicals, particles Ultraviolet radiation Antigens, haptens Microbes	Horny layer Melanocytes Langerhan cells, lymphocytes, Mononuclear phagocytes, mast cells
<b>Preservation of a balanced internal environment</b> Prevents loss of water, electrolytes and macromolecules	Horny layer
<b>Shock absorber</b> Strong, yet elastic and compliant covering	Dermis and subcutaneous fat
<b>Sensation</b>	Specialist nerve endings
<b>Calorie reserve</b>	Subcutaneous fat
<b>Vitamin D synthesis</b>	Keratinocytes
<b>Temperature regulation</b>	Blood vessels, eccrine sweat glands
<b>Lubrication and waterproofing</b>	Stratum corneum
<b>Protection and praising</b>	Nails
<b>Hormonal</b> Testosterone synthesis from inactive precursors and testosterone conversion to other androgenic steroids	Hair follicles Sebaceous glands
<b>Body odour</b> (more important in animals)	Apocrine sweat glands
<b>Psychosocial</b>	Hair, nails, appearance and tactile quality of skin.

# **PSORIASIS**

## **Definition**

Psoriasis is a common, genetically determined, inflammatory skin disorder of unknown cause which in its most usual form is characterized by well-demarcated raised red scaling patches that preferentially localize to the extensor surfaces.

**PSORIASIS** the word comes from ancient Greece and means “to itch”. Red eruptions appear on the surface of the skin and begin to itch. These areas form plaques over the reddened lesions. The plaques resemble multilayered scales of skin. Psoriasis varies in intensity from a few random spots to a massive out break covering the entire body and requiring hospitalization. Psoriasis has a tendency to be genetically inherited.

Recently it has been classified as being an auto immune disorder (the body’s immune system turning on itself). This disorder can originate in juveniles or not be evident until adulthood, it has been reported to initiate as early as birth or not occur until very late in life. Once Psoriasis begins there are only remissions and relapses of varying degrees of intensity.

## **Historical Aspects of Psoriasis**

The earliest descriptions of what appears to represent Psoriasis are given at the beginning of medicine in the Corpus Hippocraticum. This work was edited in Alexandria 100 years after the death of Hippocrates (460 -377 B.C). Hippocrates used the terms Psora and Lepra for conditions that can be recognized as Psoriasis.

Later Celsus (25 B.C) who translated the writings of Tiberius Claudius Menekrates (the personal physician of Emperor Tibericus) in the Greek, described among 40 different dermatoses a form of impetigo that was interpreted by R.William (1757-1812) as being Psoriasis. William separated two diseases as Psoriasiform entities, a discoid lepra Graeconum and a polycyclic confluent Psora leprosa which later was called Psoriasis. In 1841 dermatologist Ferdinand Non Hebra (1816-1880) unequivocally showed that William's lepra Graeconum and Psora leprosa were one disease that had caused much confusion because of differences in the size distribution growth and involution of lesions.

### **Aetiology :**

Exact cause of Psoriasis is unknown. Hypothesis of aetiology.

- Hyperplastic epidermis
- Immunological defects
- Biochemical abnormalities
- Increased epidermal proliferation / inflammatory component
- Alteration in skin content.
- Infection (retro viruses)

### **Psoriasis a disease with Genetic Predisposition**

Numerous studies over many years support the finding that genetic predisposition, an inherited tendency to develop the disease which has a major role in the pathogenesis of Psoriasis. Genetic predisposition does not mean a 100 percent guarantee that the disease will appear; other initiating factors such as

injury or infection may act together with the disease process. Supporting evidence for genetic predisposition includes,

- 1 There is a higher-than-average incidence of Psoriasis in relatives of people with Psoriasis, indicating “familial tendency” to develop the disease; however in some people with Psoriasis no family history is evident.
- 2 There is an increased incidence of Psoriasis in children when one or both parents have Psoriasis.
- 3 In studies of identical and non-identical twins, Psoriasis is much more likely to appear in both identical twins than in both non-identical twins a finding that also confirms that more than one gene must be inherited to establish genetic predisposition for Psoriasis.
- 4 There is higher than expected frequency of certain white cell antigens (class I human Leucocyte Antigens or HLA' S ) on cells of people with Psoriasis and their close relatives; this finding also supports Psoriasis inheritability and also suggests that the gene(s) involved in Psoriasis may be some chromosome that holds the genes for HLA. There are many types of HLA in the HLA complex and studies have shown that HLA type may be associated in some degree with timing of disease onset, type of Psoriasis and severity of disease.

### **Psoriasis Triggers:**

A trigger is usually needed to make Psoriasis appear whether it is for the first time or the thirtieth.

Common Psoriasis Triggers are:

**(a) Infection:**

- Candida albicans (thrush)
- Human Immuno deficiency virus (HIV)
- Staphylococcal skin infections (boils)
- Streptococcal pharyngitis (strep throat)
- Viral upper respiratory condition

**(b) Reaction to certain medications:**

- Anti-malarial drugs.
- Beta-Blockers (used to treat high blood pressure)
- Cortico steroids(to treat Psoriasis – overuse/with drawal)
- Indomethacin (NSAID – to treat arthritis)
- Lithium (to treat manic depression / other psychiatric conditions).

**(c) Skin injury:**

People with psoriasis often notice new lesions 10 to 14 days after the skin is cut, scratched , rubbed, or severely sun burned. This is called **“KOEBSNER'S PHENOMENON”** and is named after Dr. Koebner who in the 19th century observed that a patient developed new lesions in areas where his horse bit him.

A wide range of **traumas** and **skin conditions** are known to trigger **“KOEBSNER'S PHENOMENON”**:

**Skin trauma:**

- Acupuncture
- Bites
- Bruises
- Burns
- Chafing
- Chemical irritation
- Cuts and scrapes
- Pressure against skin
- Shaving
- Sunburn and peeling
- Adhesive tape on the skin
- Tattoos
- Vaccinations
- Others

**Skin conditions:**

- Boils
- Dermatitis
- Herpes blisters
- Lichen planus
- Scabies
- Vitiligo
- Others

**(d) Stress:**

- Isolated from the society because of skin changes
- Difficulty in activities of daily living because of Psoriasis
- Time-consuming treatment
- Spending money for treatment
- Ineffective treatment
- Stressful event (etc).

**(e) Weather:**

- Cold winter – trigger psoriasis
- Hot / sunny – help clear psoriasis
- Air conditioning – trigger psoriasis

**(f) other triggers:**

- Hormones
- Smoking
- Heavy drinking

**Pathogenesis**

Accelerated epidermopoiesis has been considered to be the fundamental pathological event in Psoriasis. The transit rate of Psoriatic keratinocyte is increased and the deoxyribo nucleic acid synthesis time is decreased. It has been suggested that it is the heightened proportion of epidermal cells participating in the proliferative process rather than the actual rate of epidermopoiesis, that is the

basic fault in Psoriatic lesions. The result in either case is greatly increased production of keratin.

The earliest histologic change was a inflammatory perivascular upper dermal infiltrate, with only epidermal acanthosis and parakeratosis after the transformation of the lesion into a scaly papule.

Polyamines are significantly increased in Psoriatic lesions. There is an increased production of the leucotrienes and 12-hydroxy eicosatetraenoic acid, both of which are chemotactic for polymorphonuclear leukocytes.

### **The Arachidonic acid cascade**

The complexity of the pattern of inducers of inflammation is nowhere better shown than in the production of leucotrienes, prostaglandins and eicosatetraenoic acid from arachidonic acid. Arachidonic acid is obtained from dietary sources, membranes of red meat, green leafy vegetables, corn and safflower oil. Its products are central to the aggravation of Psoriasis by trauma and to the pathogenesis of Psoriatic lesions.

Psoriasis is associated with different HLA antigens. They are B13 or B17 has a five fold risk of developing Psoriasis. In Pustular Psoriasis HLA- B27 may be seen whereas B13 and B17 are increased in Guttate and Erythrodermic Psoriasis. In palmoplantar Psoriasis, there is an increased proportion of persons having HLA-B8, Bw 35. - Cw7, and -DR3.



Farber affirms an abnormal nucleoprotein metabolism in the incomplete keratinization process in Psoriasis. In the stratum corneum the free amino acids are low, with an accumulation of MPS and of free and esterified choline. DNA and RNA accumulate and pentose, purines, uracil and organic phosphates are also increased.

There is prominent neutrophil response in psoriatic lesions. How this relates to findings of increased plasminogen activator activity in psoriatic skin or to the enhanced physiologic functions. Both Psoriasis and Reiter's disease occur with increased frequency in patients with AIDS. Also interleukin-2 therapy for malignancy may induce Psoriasis.

(Reference - Text book of Dermatology-fitz patrik)

Weddell showed that there is a profuse hyperplasia of nerve endings beneath and into the lesions of Psoriasis.

### **Histopathology:**

The histopathology appearance of Psoriasis is distinctive but not specific. Main feature may be subdivided into

- Epidermal thickening
- The inflammatory component
- The vascular component

#### **a) Epidermal Thickening:**

- Epidermis shows marked exaggeration of the rete pattern.
- Elongation of epidermal down growths with bulbous club-like

enlargement of their ends.

- Many mitotic figures can be seen
- Rate of epidermal cell production increased.
- The turn-over time of psoriatic epidermis and stratum corneum is very much shortened than normal epidermis.

**b) The inflammatory component:**

- Desiccated polymorpho nuclear leukocytes – Munro microabscesses.
- Epidermis is oedematous/infiltrated by inflammatory cells.
- Dermis also contains many inflammatory cells mostly lymphocytes.
- Leukotriene B4 – seen in psoriatic stratum corneum.

**c) The vascular component:**

- Papillary capillaries are dilated and tortuous
- Larger gaps between the endothelial cells
- Abnormal capillaries.

**Cell Systems involved in Pathogenesis of Psoriasis**

**Keratinocytes**

A characteristic feature of involved skin of Psoriatic subjects is hyper proliferation. There is two fold increase in proliferative cell population and 100 percent of the germinative cells of the epidermis appear to enter the growth fraction compared with 60 to 70 percent for normal subjects.

**T cells**

Numerous T cells are present in psoriatic lesions predominantly surrounding the vessels of the upper dermal plexus.

**Granulocytes**

Formation of spongiform microabscesses (Munromicro abscesses) filled with granulocyte is a hallmark of Psoriasis. The presence of these cells in psoriatic lesions variable and becomes more pronounced with disease activity (eg) in acute or pustular Psoriasis.

**Endothelial cells**

Changes in the dermal capillary endothelium have been implicates at the site of primary defect. Hyper proliferation of endothelial cells is most pronounced in the tortous dilated capillaries at the advancing edges of a lesion.

**Mast cells**

Mast cell densities are increased in lesional psoriatic skin compared with normal or uninvolved psoriatic skin.

**Fibroblasts**

Fibroblasts are potent producers of cytokines and lipid mediators that could affect the epidermis as well as the inflammatory reaction.

## **CLINICAL FEATURES**

### **The lesions**

- Well demarcated margin and is raised above the skin surface (plaque)
- Plaques vary enormously in size and shape
- They often start out discoid but end up polycyclic

### **Sites Affected**

- Extensor aspects of trunk and limbs preferentially. Sometimes flexor aspects also affected.
- Knees, elbows, scalp are frequently affected.
- Nails are often affected and may show – “thimble pitting”, separation of the nail plate from the nail bed (onycholysis) subungual debris, brownish – black discolourations and deformities of the nail plate.
- Major body folds in elderly who are over weight (flexor aspects)
- Groins, genitalia, axillae
- Inframammary folds in women.
- Skin of abdominal folds/ umbilicus.
- Scalp margin, paranasal folds, retro auricular folds.

## **CLINICAL VARIANTS OF PSORIASIS**

### **Guttate Psoriasis**

- Guttate Psoriasis, named for its droplet –shaped lesions.
- More Common in children and young adults.

- Guttate lesions range in diameter from 0.1cm to 1 c.m
- They are predominate on the trunk and proximal areas of the extremities and are more likely to involve the face.
- Often it develops some two or four weeks after an episode of tonsillitis or pharyngitis, mostly due to beta-haemolytic streptococci.
- Represent acute flare of pre-existing chronic plaque type Psoriasis.

#### **Plaque – type Psoriasis (Psoriasis vulgaris)**

- Occuring in 75% to 80% of all psoriasis patients.
- Lesion is well demarcated, red – violet round or oval plaque.
- Lesion is 1c.m or larger in diameter and surrounded by white silvery scales, which overlie bony prominences.
- In darkly pigmented patients, lesions are hyperpigmented with various shades of brown or black, which are accentuated by chronic rubbing or scratching.
- Symmetry of distribution of skin lesions is the rule in plaque type psoriasis.
- Face is frequently spared. Most commonly involved areas are elbows, knees, scalp, sacrum, umbilicus, intergluteal cleft and genitalia.
- 70% of patients complain of pruritis, skin pain, or burning, especially when the scalp is involved.

## **PUSTULAR PSORIASIS.**

It is characterized by sterile pustules either generalized or localized to palms and soles.

### **(a) Localized Pustular Psoriasis (Palmoplantar Pustulosis)**

- Yellowish white, sterile pustules on the central parts of the palm and soles.
- Older lesions take on a brownish appearance and later are shed in a scale at the surface
- Lesions are observed in all stages of development, including vesicles, vesicopustules, frank pustules and dried brown maculopapules
- The disorder is resistant to treatment and is subject to relapses and remission over many years

### **(b) Generalized pustular psoriasis (Von Zumbusch)**

- Characterized by fiery – red, irregular patches with round, arcuate, serpiginous borders that are studded with myriad 1m.m to 2 m.m superficial pustules.
- Severe systemic upset, a swinging pyrexia, arthralgia and a high polymorpho nuclear leuco cytosis, hypocalcaemia, hypoalbuminaemia accompanying the skin disorder.
- The skin patches have a predilection for flexural or skin – fold areas such as armpits, groin, or under breasts but may occur anywhere.
- The tiny pustules coalesce into lakes of pus, desquamate, and form new pustules as the borders moves in waves every 24 to 72 hours.

### **(C) Other rare variants of pustular psoriasis**

#### **1. Acrodermatitis Continua (Dermatitis repens)**

Recalcitrant pustular erosive disorder on the fingers and toes around the nails and occasionally elsewhere

#### **2. Pustular bacteriod**

Sterile pustules suddenly appear on the palms and soles after an infection.

#### **3. Subcorneal pustular dermatosis**

There is generalized eruption of sterile superficial pustules.

### **ERYTHRODERMIC PSORIASIS**

Plaque type Psoriasis progress to erythrodermic Psoriasis in which the plaque – like appearance disappears and the skin is universally red and scaly.

- Concomitant Psoriatic arthropathy is common
- Heat loss (because of increased blood supply to skin)
- Water loss leads to dehydration because of the disturbed barrier function of the abnormal stratum corneum.
- Hyperdynamic circulation
- Risk of high cardiac output failure
- Loss of protein, electrolytes, metabolites via the shed scale and exudates and may develop deficiency states
- Depressed because of malaise, pruritis and discomfort

### **NAPKIN PSORIASIS**

Infantile napkin dermatitis some times takes on Psoriatic lesions develop on the scalp and trunk.

## **NAIL PSORIASIS**

- Finger nails are affected more than toe nails
- Pitting of nail plate. The pits tend to be large, deep and randomly dispersed on the nail plate.
- Small red spots in the lanula or yellow-brown spots (“oil droplet sign”) in the nailbed correspond to early guttate lesions of Psoriasis.
- The distal nail plate may separate from the nail bed (onycholysis)
- Chronic inflammation of the nail matrix may lead to scarring and permanent dystrophy, mimicking onychomycosis, especially when toe nails are affected.

### **Terms describing Morphologic features of Psoriasis**

#### **Psoriasis ostracea**

Old patches may be thickened and tough and covered with lamellar scales like outside of an oyster shell.

#### **Psoriasis guttata**

The lesions are the size of water drops.

#### **Psoriasis follicularis**

Tiny scaly lesions are located at the orifices of the pilosebaceous follicles.

#### **Psoriasis figurate, Psoriasis annulata & psoriasis gyrate**

The lesions have curved linear patterns produced by central involution.

#### **Psoriasis discoides**

In this type central involution does not occur and solid patches persist.



**Psoriasis rupioides**

In this type crustaceous lesions occur resembling syphilitic rupia.

**Psoriasis flexura**

Better known as inverse Psoriasis and is found in intertriginous area.

**Volar Psoriasis**

On palms and soles.

**Systemic Association of Psoriasis****Inflammatory Bowel Disease**

The strong linkage of HLA-B 27 to ankylosing spondylitis and ulcerative colitis and the increased frequency of this haplotype in patients with psoriasis and arthritis (about six times normal) suggest that ulcerative colitis should be seen more frequently in patients with psoriasis. The frequency of psoriasis among patients with ulcerative colitis and crohn's disease is respectively, 3.8 and 7.6 times normal.

**Occlusive Vascular Disease**

Investigators to propose an association between Psoriasis and large vessel disease. Current evidence suggests that patients with Psoriasis especially males have an increased incidence of occlusive vascular disease (Thrombophlebitis, Myocardial infarction, pulmonary and cerebral vascular accidents).

## **Systemic effects of Psoriasis**

Generalized pustular Psoriasis described by Von Zumbusch, is the form associated with systemic findings. This form of Psoriasis appears as waves of sterile pustules on an erythematous skin, characteristically short episodes of fever  $39^{\circ}$  to  $40^{\circ}\text{C}$  followed by another wave of new pustules. In addition to fever there are systemic signs of disease such as weight loss, muscle weakness, leucocytosis, hypocalcemia and an increased sedimentation rate. In patients with pustular Psoriasis, arthropathy is common as is the HLA – B27-haplotype.

Studies of approximately 500 patients suggest that patients with Psoriasis have a normal risk of systemic cancer and possibly increased risk of cutaneous cancer.

## **Dignosis of Psoriasis Is Based Upon**

- Family History of Psoriasis
- Typical distribution of the lesion on scalp, elbows, knees, front of legs and nails
- Well defined non - indurated, dry erythematous areas with silvery layer
- The candle - grease sign
- Auspitz sign
- Koebner's phenomenon
- Little or no itching

### **Severity of psoriasis**

- Extensive plaque type psoriasis involving 20% or more of the body surface area (BSA)
- Psoriatic erythroderma
- Generalized pustular psoriasis

### **A broader definition of severe disease include**

- Disabling plaque type Psoriasis involving the face, genitalia, hands and feet
- Psoriasis complicated by medication, such as rotational therapy or by a need for medication withdrawal, such as that caused by flare due to systemic corticosteroids.
- Disabling psoriatic arthritis with skin disease of any extent.

### **COMPLICATIONS OF PSORIASIS**

Complications are infrequent

- Psoriatic arthritis can cause disability
- Exfoliative dermatitis
- Eczematous lesion caused by scratching and infection
- Lichenification brought by scratching

### **PROGNOSIS**

Psoriasis can be controlled satisfactorily. General health and longevity are unaffected. The clinical course of the lesion is chronic with various periods of remissions (weeks to years). The whole position should be explained to the

patient. He should be encouraged for persisting towards the treatment until the lesions have disappeared. Psoriasis does not leave scars. The nail gradually assumes the normal appearance. The palmar and nail psoriasis are more resistant to the treatment.

### **Common Laboratory Abnormalities in Psoriasis**

- Elevated Uric acid
- Mild anemia
- Negative nitrogen balance
- Increased sedimentation rate
- Increased- $\alpha$  2 Macro globulin
- Increased IgA levels and increased quantities of immune complexes.

### **Serum Uric acid**

Serum uric acid is elevated in 30-50 percent of patients with Psoriasis. This is thought to be caused by the increased epidermal proliferation seen in Psoriasis and it is associated with break down of DNA. Elevated Uric acid levels increase the risk of gouty arthritis and there are reported cases of typical gouty arthritis with Psoriasis.

### **Haematologic findings**

#### **Folate metabolism**

It is not uncommon for patients with Psoriasis to present with mild anemia. Although the anemia is usually categorized as anemia of chronic disease, there is evidence of folate and iron abnormalities.

**Iron metabolism**

Iron content in normal stratum corneum is  $26 \mu\text{g/g}$  and the normal loss of stratum corneum per day approaches  $1\text{g}$ . In Psoriasis the iron loss approach  $50\text{gms}$ . The mean iron content of the shed stratum corneum of involved sites in patient's with Psoriasis is two times normal. These calculations suggest that up to  $2.5\text{mg}$  of iron can be last per day via desquamation.

**Protein loss**

Negative nitrogen balance, defined as protein loss exceeding nutritional requirements, may be reflected in serum albumin levels. Although the pathologic significance is unknown, hypoalbuminemia has been noted in patients with severe psoriasis.

**Serum proteins**

Patients with Psoriasis have increased levels of C- reactive protein and  $\alpha 2$  macro globulin and generally their sedimentation rates are elevated. Recently it has been observed that serum IgA levels and IgA immune complexes are elevated in patients with Psoriasis.

## **DIFFERENTIAL DIAGNOSIS**

Psoriasis must be differentiated from Seborrheic dermatitis, Pityriasis rosea, Lichen planus, Eczema, Psoriasiform syphilis, and Lupus erythematoses.

## **SEBORRHEIC DERMATITIS**

In Psoriasis lesions are on the extensor surfaces, especially of elbows, knees and on the scalp, whereas in seborrheic dermatitis, scalp is involved there is a predilection for the eyebrows, nasolabial angle, the ears, the sternal region and the flexures. The scales in Psoriasis are dry, silvery and shiny, whereas those in seborrheic dermatitis are greasy and lusterless. On removal of the scales in Psoriasis there is a oozing of blood from the capillaries (Auspitz sign) whereas this does not occur in seborrheic dermatitis.

## **PITYRIASIS ROSEA**

In pityriasis rosea, the eruption is located on the upper arms, trunk and thighs and the duration is a matter of weeks. There are oval, rose coloured patches that centrally show a crinkling of the epidermis and on almost perceptible scaling, often of colarette type. The onset with the herald patch and the tendency of the subsequent lesions to arrange themselves so that their long diameters are parallel to the direction of the rib, helps to distinguish between pityriasis rosea and psoriasis.

## **LICHEN PLANUS**

Lichen planus affects chiefly the flexor surfaces of the forearms and wrists and the shins and ankles. The patches are pruritic and thickened. Often the violaceous colour is pronounced, but at other times the patches are a dirty brown

colour, only distinguished from psoriasis by close examination, which reveals that the scaling is not at all micaceous, but scanty and tightly adherent at the edge of the patch. The scalp is much less frequently involved, and the nails are not pitted as in psoriasis, but longitudinally ridged and thickened with pterygium a characteristic finding.

### **ATOPIC DERMATITIS**

In atopic dermatitis the distribution is usually not on the extensor surfaces of elbows and knees and exudation and a slight greyish scaling, accompanied by severe itching are present.

### **PSORIASIFORM SYPHILIS**

The psoriasiform syphilis, has infiltrated patches of copper coloured papules, often arranged in a configurate manner. The scales are brownish and sparse. Serologic tests for syphilis are positive; a general adenopathy and often mucuous patches, condylomas and other symptoms of late secondary syphilis are present. Itching is usually absent.

### **LUPUS ERYTHEMATOSUS**

In lupus erythematosus, the lesions are discrete plaques, usually on the face, scalp associated with atrophy, scaling and alopecia. Rarely face is affected in psoriasis. The scales of lupus erythematosus are greyish and adherent. Removal of the scale the undersurface is seen to be papillous due to the projecting follicular plugs. There is a psoriasiform subset of subacute cutaneous lupus erythematosus that may be distinguished by its location on the upper trunk, arms, legs, face and by other signs of Lupus erythematosus such as photosensitivity.

## **PSORIATIC ARTHRITIS (Arthropathic psoriasis)**

Psoriatic arthritis is a destructive arthropathy and enthesopathy (tendinitis, dactylitis and fascitis) with some clinical features in common with rheumatoid arthritis. It is an autoimmune disease.

### **Symptoms of Psoriatic arthritis**

- Symmetrical involvement of the small joints of hands, feet, wrists, ankles in patients with psoriasis.
- No obvious skin findings.
- Minimal scaly red skin on the scalp, in the belly button, or between the buttocks.
- Nail abnormalities.
- Conjunctivitis
- Iritis
- Inflammation of muscles and tendons, especially in heel, sole of foot.

### **Patterns of Psoriatic arthritis**

#### **(a) Asymmetrical Oligoarticular arthritis**

- Arthritis that involves a few joints but not necessarily the same joints on both sides of the body or other similar joints on the same side of the body.
- Usually, fingers and toes are affected, first fingers have a “Sausage” appearance (Called dactylitis).
- Usually, fewer than 5 joints are affected at any particular time.



**(b) Symmetrical Polyarthritis**

- Arthritis that involves the same joints on both sides of the body.
- Hands, wrists, ankles and feet may be involved.

**(c) Distal interphalangeal arthropathy**

Arthritis in the joints at the ends of the fingers and toes.

**(d) Arthritis mutilans**

A long term psoriatic arthritis in which the joints are severely damaged and deformities can be seen/ especially in the hands and feet.

**(e) Spondylitis**

Inflammation of the vertebrae in the spine with or without inflammation of the sacroiliac joint and inflammation of the hip.

**(f) Juvenile psoriatic arthritis**

This often occurs in 9 to 10 year old girls.

## **MATERIALS AND METHODS**

The study on Kalanjaha padai was performed in Government Siddha Medical College Hospital, Palayamkottai. All the cases were treated in both out patient and in patient ward, Post Graduate Department of Sirappu Maruthuvam.

### **Selection of Cases**

The cases were selected according to the symptoms and signs mentioned in the various Siddha literatures including Sirappu Maruthuvam. Certain criteria were followed for case selection. They are,

### **Inclusive Criteria**

- Family history of Psoriasis
- Pre dispositions to Psoriasis
- Typical Extensor Distribution
- Flexural Psoriasis
- Volar Psoriasis –Psoriasis in toes & nails
- Psoriatic Arthropathy

### **Exclusive Criteria**

- Erythrodermic Psoriasis
- Pustular Psoriasis
- Psoriasis with Secondary Infections
- Psoriasis with Complications

According to the above criteria, 75 cases were selected both out patient and in patient. They belong to the age group between 13 and 80 in both sex.

Priority of admission was given according to the clinical findings. Confirmation of diagnosis was made, by conducting all the necessary investigations in Siddha as well as in Modern Medicine Methodology. 20 cases were treated as In-patient.

### **Method of case Selection**

#### **Diagnosis Method:**

- Siddha diagnosis was made with the help of following Methods.

1. Poriyaal arithal
2. Pulanaal arithal
3. Vinaathal
4. Envagai Thervugal(Including neerkuri, neikuri)
5. Thinaigal
6. Paruvakaalangal

(Those are already discussed under review of literature)

- Modern Medicine diagnosis was made with the help of following methods.

### **General Examination**

Anaemia

Jaundice

Cyanosis

Clubbing

Pedal Oedema

Significant lymphadenopathy

Temperature

Respiratory rate

Heart rate

Pulse rate

Blood Pressure

### **Skin Examination**

Site	-
------	---

Colour	-
--------	---

Size	-
------	---

Shape	-
-------	---

Border	-
--------	---

Itching	-
---------	---

Erythema	-
----------	---

Macule	-
--------	---

Papule	-
--------	---

Auspitz Sign	-
--------------	---

Koebner's Phenomenon	-
----------------------	---

Candle Grease Sign	-
--------------------	---

**Lab Investigations:**

Blood	:	Total WBC Count
		Differential count of WBC
		Erythrocyte sedimentation rate
		Haemoglobin percentage
		Blood Sugar
		Blood Urea
Urine	:	Serum Cholestrol (LDL & HDL)
		Albumin
		Sugar
Motion	:	Deposit
		Ova
		Cyst

Skin scrapping test for fungus.

**Selection of drug and its administration**

Selection of drug was made from the elaborate study of various Siddha literatures and finally the drug were selected from Siddha Vaithya Pathartha Guna - Vilakkam Kannusamyam Pillai and Gunapadam mooligai.

The trial medicines are “**NEERADIMUTHU RASAYANAM**” as internal medicine and “**AADUTHEENDAPALAI VEMBU THYLAM**” as external medicine.

Pharmacological analysis of the trail drug was done at the Department of Pharmacology, Government Siddha Medical College, Palayamkottai. The details are given in Annexure.

Bio-chemical analysis was done at the Department of Bio-chemistry, Government Siddha Medical College, Palayamkottai. The details are given in Annexure.

All the 20 in-patients were treated in the IP ward in the duration of 7 to 48 days. After reducing the severity of symptoms, patients were follow up as out patient.

#### **CASE PROFORMA :**

They symptoms and signs of Psoriasis , history of present and past illness, Personal history, Nutritional history, Family history, menstrual history, Habits, Laboratory investigations and management were systematically recorded in a proforma.

## OBSERVATIONS AND RESULTS

### 1. Sex Distribution:

For the study of Kalanjaha Padai 20 patients were selected of which 13 cases were males the rest 7 were females.

Sl.No	Sex	No.of Cases	Percentage
1.	Male	13	65%
2.	Female	7	35%

### 2. Age Distribution:

Out of the 20 cases taken for clinical trial ie. six groups of agewise distribution follows:

Sl.No	age	No.of Cases	Percentage
1.	18 – 30	2	10%
2.	31 – 40	1	5%
3.	41 – 50	8	40%
4.	51 – 60	4	20%
5.	61 – 70	3	15%
6.	71 – 80	2	10%

### 3. Kaalam distribution:

According to Siddha literature human life can be classified in to three periods each having approximately 33 years of age with respect to vatha, pitha and kaba dosha dominance one by one respectively.

Considering this into account, twenty cases admitted in the ward were arranged serially in percentage wise.

Sl.No	Kaalam	No.of Cases	Percentage
1.	Vatha Kaalam ( 1-33 years)	2	10%
2.	Pitha Kaalam ( 33-66 years)	14	70%
3.	Kapha Kaalam ( 66 – 99 years)	4	20%

Comparing pithakaalam cases very few cases of vatha and kaba kaalam cases were reported during this study.

#### 4. Occupational status:

Sl.No	Nature of Work	No.of Cases	Percentage
1.	Farmer	5	25%
2.	Driver	2	10%
3.	House wife	3	15%
4.	Ryot	2	10%
5.	Coolies	3	10%
6.	Student	1	5%
7.	Building workers	4	20%

As per the occupational chart, the routine day to day work of the individuals was given as above, comparing others, Farmers and building workers were complained of this diseases in heavy.



## 5. Diet habits:

When the cases, admitted for clinical trial were enquired about their daily dietary habits it was entered following.

Sl.No	Diet Type	No.of Cases	Percentage
1.	Vegetarian	2	10%
2.	Mixed diet	18	90%

## 6. Seasonal references:

An annual term consists of (12 months of a year) a classification which includes six paruvakaalam in respect of solar changes. When the 20 cases of clinical trial were enquired about the seasonal state, during the timing of occurrence and severity of the disorder. 50% cases at pinpanikaalam.

Sl.No	Paruva Kaalam	No.of Cases	Percentage
1.	Kaar ( Avani - Puratasi) Aug 16 – Oct 15	2	10%
2.	Koothir (Ayppasi -Karthigai) Oct 16 – Dec 15	-	0
3.	Munpani (Markazhi – Thai) Dec 16 – Feb15	-	0
4.	Pinpani (Massi – Panguni) Feb 16 – Apr 15	10	50%
5.	Elavenil (Chithirai –Vaikasi) Apr 16 – June 15	5	25%
6.	Muthuvenil (Aani & Aadi ) June 16 – Aug 15	3	15%

## **7. Thinai reference:**

Living area on the whole earth is divided in to five lands. According to the following table as it influences very much for the well being and robust condition of human race except one (ie) desert land.

<b>Sl.No</b>	<b>Thinai</b>	<b>No.of Cases</b>	<b>Percentage</b>
1.	Kurinji (Hill area)	-	-
2.	Mullai (Forest area)	-	-
3.	Marutham (Fertile land)	20	100%
4.	Neithal (Costal area)	-	-
5.	Palai (Desert)	-	-

## **8. Socio economic condition:**

Out of the 20 cases taken most of them were from poor section of the society such as daily wages and slum dwellers. (75%).

<b>Sl.No</b>	<b>Socio Economic condition</b>	<b>No.of Cases</b>	<b>Percentage</b>
1.	Poor	15	75%
2.	Good	5	25%

**9. Physical constitution (yakkai ilakkanam)**

Sl.No	Yakkai ilakkanam	No.of Cases	Percentage
1.	Thontha Udal	10	50%
2.	Kaba “	5	25%
3.	Pitha “	3	15%
4.	Vatha “	2	10%

Among the 20 cases the majority were thontha udal

**10.Gunam (Quality and Character):**

Sl.No	Gunam	No.of Cases	Percentage
1.	Sathuva Gunam	-	-
2.	Rajo Gunam	20	100%
3.	Thamo Gunam	-	-

**11. Family history**

Sl.No	Family history	No.of Cases	Percentage
1.	Positive ( (either parents or grand parents)	-	-
2.	Negative ((not related with heredo familial)	20	100%

## 12. Triggering factors:

Sl.No	Triggering factors	No.of Cases	Percentage
1.	Infection	-	-
2.	Reaction to certain medication	-	-
3.	Skin injury	3	15%
4.	Psycho – somatic	5	25%
5.	Hormones	-	-
6.	Alcohol	7	35%
7.	Smoking	5	25%

From the above table 35% were alcoholic, 25% were smokers and 25% due to psychosomatic causes.

## 13. Clinical features

Sl.No	Clinical features	No.of Cases	Percentage
1.	Red patches with ivory (silvery) scales	20	100%
2.	Scalp	8	40%
3.	Auspitz sign	18	90%
4.	Koebner's phenomenon	11	55%
5.	Nail changes	1	5%
6.	Palm and sole lesion	2	10%

## 14. Distribution of Tridosha

### a. Table illustrating the derangement of vatham

According to the Siddha theory the three chief constituents of the body viz, vatha, pitha and kaba and its classification changes from the normal state to pathological state due to varied etiology. Hence the derangement of doshas in Kalanjaha padai is illustrated in the following table.

Sl.No	Classification of Vatha	No.of Cases	Percentage
1.	Piranan	-	-
2.	Abanan	10	50%
3.	Udhanan	-	-
4.	Viyanan	20	100%
5.	Samanan	20	100%
6.	Nagan	-	-
7.	Koorman	-	-
8.	Kirukaran	-	-
9.	Devathatham	5	25%
10.	Thananjayan	-	-

**Table illustrating the derangement of Pitha**

Sl.No	Classification of Pitha	No.of Cases	Percentage
1.	Analagam	-	-
2.	Ranjagam	20	100%
3.	Sathagam	20	100%
4.	Alosagam	-	-
5.	Pirasagam	20	100%

**Table illustrating the derangement of Kaba**

Sl.No	Classification of kaba	No.of Cases	Percentage
1.	Avalambagam	-	-
2.	Kilethagam	-	-
3.	Pothagam	-	-
4.	Tharpagam	3	15%
5.	Santhigam	5	25%

### **15. Udal kattugal**

The seven thathus which contribute the body for the structure and function get altered accordingly in pathological conditions. Hence in Kalanjaha padai patients the following observations were tabulated as follows.

Sl.No	Name of Udal kattugal	No.of Cases	Percentage
1.	Saaram	20	100%
2.	Senneer	20	100%
3.	Oon	-	-
4.	Kozhuppu	-	-
5.	Enbu	5	25%
6.	Moolai	-	-
7.	Sukkilam /Suronitham	-	-

#### **16. Ennvagai thervugal**

In Siddha system of Science the eight types of investigations are emphasized much for clinical approach and diagnosis of the disease. Hence the rules were strictly followed and the observation were tabulated

Sl.No	Ennvagai thervugal	No.of Cases	Percentage
1.	Naa	-	-
2.	Niram	20	100%
3.	Mozhi	-	-
4.	Vizhi	3	15%
5.	Sparisam	20	100%
6.	Malam	10	50%
7.	Moorthiram	-	-
8.	Naadi		
	Vaatha kabam	9	45%
	Pitha kabam	11	55%

Regarding Ennvagai thervugal niram and sparisam were affected in all the patients (100%) malam (constipation) was affected in the 10 cases (50%) regarding naadi the 9 patients had vaatha kabam (45%) and the 11 cases had pitha kabam (55%) and vizhi in the 3 cases.

#### 17. Neerkuri, and the neikuri reference

Sl.No	Type of Test	No.of Cases	Percentage
1.	Neerkuri-Straw	20	100%
	coloured/heycolour		
2.	Neikuri		
	1. Muthothunitral	11	55%
	2. Spread like ring	9	45%
	3. Spreading like a serpent	-	-

#### 18. Duration of illness

Sl.No	Duration of illness	No.of Cases	Percentage
1.	Below 1 month	1	5%
2.	Between 1-6 month	5	25%
3.	Between 6-12 month	10	50%
4.	1-3 years	4	20%

Duration of the sufferings were reported above 6 months-50% the next is below six months.



**Result after treatment**

Sl.No	Result	No.of Cases	Percentage
1.	Good	4	20%
2.	Fair	14	70%
3.	Poor	2	10%

Out of the 20 cases, 20% of the cases were found good relief and 70% fair.

## DISCUSSION

It is a well known fact that each and every case with the disease Kalanjaha padai is specific by nature. This being the fact, it can be clearly understood that there can be no specific and definite way of treating the disease in a uniform manner. Any attempt made to evaluate the nature of the disease leading to the way of treatment is itself an achievement. In this way the present Kalanjaha Padai is a disease causing social and psychological embarrassment by the nature of producing skin lesions with silvery mica like scales although it is not a life threatening disease. So the patients are anxious and pray for quick and permanent remedies. Siddha system envisages many remedies in this direction.

Kalanjaha Padai, as per its characteristics, resembles Psoriasis Vulgaris in modern medicine. Red raised plaques with silvery scales which bleed pinpointly on removing them are found all over the body. These are the clinical features described in Siddha system of medicine. It is not contagious according to Siddha literature.

The Siddha aspects of Kalanjaha padai are discussed in various Siddha texts. The author has taken this evidence largely from Sirappu maruthuvam, Yugi vaidhya Sinthamani, Agasthiar paripooranam-400, Siddha Maruthuvanga churukkam and Gurunadi nool. These texts discuss about the aetiology, pathogenesis, clinical features, investigations, diagnosis, prognosis and treatment of Kalanjaha padai.

Treatment aspects include Pathiyam (diet restrictions), Eyama, Nyama [Good aspects in words and deeds), pranayamam (breathing exercises) and Yogasanam (Postures). These are discussed in Siddha literatures like PatharathaGuna Sinthamani, Thirumoolar Thirumanthiram and Sirappu Maruthuvam besides the drug treatment. The above said drugless methodical treatment was very useful in alleviating the stress, one of the main precipitating factors of the disease.

The drug treatment includes the Ahamaruthuvam (Internal Medicine) and Puramaruthuvam (External medicine/topical application). These are found to arrest the disease process and cure it with a quick response or relief.

Twenty cases were selected and admitted for In Patient ward. They were diagnosed and treated according to the criteria found in Siddha texts. Modern routine investigations were also carried out to exclude other systemic diseases if any.

### **Sex distribution**

In the study period among the 20 cases 17 were males and the rest were Female. According to the text books there is no apparent sex predilection in Kalanjaha padai, but the major vulnerability of males may be due to their life style with augmented mental strain, when compared with females.

### **Age distribution**

During the entire course of study the author found the disease Kalanjaha padai affects the age group between 20 and 80.

**Kaalam distribution.**

The clinical study revealed that the incidence of the disease was highest in Pitha kaalam (33-66 years) -70 %.

**Occupation and socio economic status**

Out of the 20 cases 15 cases were from poor socio-economic status 5 cases belong to middle class. Most of them get daily wages.

**Diet habits**

18 patients have mixed diet and 2 patients were purely vegetarian.

**Seasonal reference**

Out of 20 cases, the maximum of cases were admitted during pinpani kaalam.

**Thinai reference**

Among 20 cases treated, all cases belong to Marutha nilam. Even though, the literature says no disease will occur in 'marutha nilam', it was not correlated with this study.

**Triggering factors**

The subjects include alcoholic, smoker, psychologically stressed and had skin injury.

**Tridosha reference**

In tridoshas especially in Vatham, abanan was affected in 50 % of cases and samanana, viyanana in 100 % of cases. In pitham, Ranjagam, Sathagam and

Prasagam were affected in all cases. In Kabam, Tharpagam was affected in 15% and Santhigam affected in 25% of cases.

### **Udal kattugal reference**

Out of 7 udal thathus, Senneer was affected in all the 20 cases and Saram and Enbu were also affected.

### **Ennvagai thervugal**

Niram and sparisam were affected in all 20 cases as there were dryness, roughness and thickness of the skin, pinpoint bleeding on removing the scales. Habitual constipation was reported in 10 cases. Vatha Kapha Nadi was noted in 9 cases and Pitha Kabam in 11 cases.

Modern laboratory investigations such as TC, DC, ESR, Hb, Blood Sugar, Urea, Serum cholesterol, VDRL, Urine for albumin, sugar and deposits, Motion for ova and cyst were carried out at the laboratory of Government Siddha Medical College, Palayamkottai to rule out other systemic involvement.

Well defined non indurated dry erythematous areas with silvery white scales, in layer by layer, scaly form, candle grease sign, Auspitz sign, Koebner's phenomenon with little or no itching are the clinical features of Psoriasis which resemble Kalanjaha Padai and the disappearance of these were considered as the criteria for determining the cure of the disease.

The drugs under the clinical trial were,

1. Neeradimuthu rasayanam-500 mgm daily 2 times with hot water.
2. Aadutheenda palai vembu thylam for topical application.

The preparations and dosage of these drugs were taken from Siddha vaithiya pathartha guna vilakkam-Kannusamiyam pillai and Gunapadam-mooligai Vaguppu.

All the patients were instructed to follow pathiyam, irrespective of O.P. and I.P. Patients.

Mica like scales was reduced to minimum variations within 15 days of treatment. Raised, non indurate plaques were also reduced in size during this period.

A marked and gradual disappearance of Auspitz sign was noticed everyday. During the time of treatment the patients were uniformly advised to follow Yogasanas and Pranayamam. These methods gave them a good supportive therapy and patients felt better while practicing them.

Pharmacological analysis of the trial drugs were done at the Department of Pharmacology and Biochemical analysis of the test drug was done at the Department of Bio chemistry, Govt. Siddha Medical college, Palayamkottai.

## SUMMARY

The disease kalanjaha padai was taken for the clinical study. The clinical study on kalanjaha padai with reference to its aetiology, pathogenesis, clinical features, investigation, diagnosis and treatment was conducted at the Post Graduate Department of sirappu Maruthuvam, Government Siddha Medical College, Palayamkottai. Twenty cases with the signs and symptoms of kalanjaha padai were selected and a thorough observation was made. They were found out from the outpatient department and admitted in the inpatient ward.

No adverse reactions like nausea, vomiting, diarrhoea were reported during the study period. The drugs employed in the clinical study were given to use only after careful purification process.

The majority of the patients were male. The trial drug had mainly kaippu suvai and this mainly accounts for the therapeutic effect in skin diseases.

The results were found to be encouraging. Among the inpatients treated 20% shows good result. 70% shows moderate result and 10% shows mild results. In out patients 10 cases were treated with both internal and external medicines. Out of these 30% shows good results, 60% fair and 10% poor. 5 cases treated only with internal medicine. Out of these 40% shows fair and 60% poor. 5 cases treated only with external medicine. Out of these 60% fair and 40% poor.

For chronic skin diseases, Siddha system of medicine confers excellent therapeutic agents than the other systems. Also clinical evaluations and specific laboratory tests confirm this statement.

In Bio-Chemical analysis Neeradimuthu Rasayanam contains Chloride, unsaturated compound, reducing sugar, Amino acids.

In pharmacological studies of Neeradimuthu Rasayanam shows moderate anti-histaminic action, mild anti-inflammatory action and Aadutheenda palai vembu thylam shows moderate anti-inflammatory action.

The drug of choice for both internal as well as external are economically less costly. Regarding the preparation point of view the drug was easily to be prepared.

No side effect was reported for the drug and with short duration with certain restriction this disease can be cured. As research point of view the author has a challenging work by these preparations for this skin disorder.



## CONCLUSION

1. The treatment was given for Psoriasis on the basis of Siddha system principles.  
Deranged three doshas were corrected by the author prepared medicine given.
2. Neeradimuthu Rasayanam as an internal medicine and Aadutheendapalai vembu thylam as an external application respectively.
3. In the above medicines, internal medicine was selected from Siddha vaithya pathartha guna vilakkam - Kannasamiyam pillai and external medicine was selected from the Gunapadam - Mooligai vaguppu.
4. 20% of cases found good results 70% have Fair.
5. The clinically the drugs were free from adverse effect.
6. Preparation of both, Internal and External Medicines were simple.
7. Hence it is concluded that the trial drugs were effective against Psoriasis.

### LIST OF OUT PATIENTS

#### Out patients treated with both internal and external medicines

Sl.No	Date	O.P.No.	Name	Age/Sex	Complaints			No. of days	Report
					Scaling	Candle Grease Sign	Auspitz Sign		
1	02.05.07	31063	Mr. Kuttalalingam	73/M	Present	Present	Present	37	Fair
2	03.05.07	31261	Mr.Ameer Rutheen	48/M	Present	Present	Present	35	Fair
3	10.05.07	32739	Mrs.Chitra	24/F	Present	Present	Present	40	Good
4	17.05.07	34085	Mr.Durai Raj	57/M	Present	Present	Present	35	Fair
5	17.05.07	34099	Mr. Pon Pandey	40/M	Present	Present	Present	35	Fair
6	18.05.07	34164	Mr.Gurusamy	45/M	Present	Present	Present	34	Poor
7	21.05.07	34712	Mr. Pon Raj	40/M	Present	Present	Present	29	Fair
8	23.05.07	35161	Miss. Anusuah	13/F	Present	Present	Present	27	Good
9	29.05.07	36285	Mr.Sorimuthu	79/M	Present	Present	Present	29	Good
10	01.06.07	36913	Mr. Nambi	50/M	Present	Present	Present	34	Fair

#### Out patients treated with internal medicine

Sl.No	Date	O.P.No.	Name	Age/Sex	Complaints			No. of days	Report
					Scaling	Candle Grease Sign	Auspitz Sign		
1	06.06.07	37822	Mrs.Babuammal	55/F	Present	Present	Present	26	Poor
2	26.06.07	41847	Mr.Swaminathan	45/M	Present	Present	Present	21	Fair
3	09.07.07	43945	Mr.Paneer Selvam	23/M	Present	Present	Present	16	Poor
4	08.08.07	49888	Mrs. Praveena	28/F	Present	Present	Present	21	Fair
5	27.08.07	53437	Mrs. Kuttiammal	47/F	Present	Present	Present	7	Poor

#### Out patients treated with external medicine

Sl.No	Date	O.P.No.	Name	Age/Sex	Complaints			No. of days	Report
					Scaling	Candle Grease Sign	Auspitz Sign		
1	08.06.07	38164	Mrs. Rajee	60/F	Present	Present	Present	28	Fair
2	12.06.07	38873	Mr. Muthuraj	26/M	Present	Present	Present	30	Fair
3	17.07.07	45641	Mr. Chandran	70/M	Present	Present	Present	7	Poor
4	05.09.07	55131	Mrs. Kala	42/F	Present	Present	Present	21	Fair
5	05.09.07	55157	Mrs. Kabeeba	42/F	Present	Present	Present	20	Poor



## Investigations of 20 IP Patients

S. No	IP. No	Urine			Motion		Skin scrapping test
		Alb	Sug	Dep	Ova	Cyst	
1	1893	Nil	Nil	1-2 PC	Nil	Nil	Negative
2	920	Nil	Nil	NAD	Nil	Nil	Negative
3	922	Nil	Nil	2-3 EPC	Nil	Nil	Negative
4	1003	Nil	Nil	NAD	Nil	Nil	Negative
5	1078	Nil	Nil	NAD	Nil	Nil	Negative
6	1145	Nil	Nil	NAD	Nil	Nil	Negative
7	1146	Nil	Nil	NAD	Nil	Nil	Negative
8	1360	Nil	Nil	FPC	Nil	Nil	Negative
9	1019	Nil	Nil	NAD	Nil	Nil	Negative
10	1079	Nil	Nil	NAD	Nil	Nil	Negative
11	1144	Nil	Nil	1-2 EC	Nil	Nil	Negative
12	1422	Nil	Nil	NAD	Nil	Nil	Negative
13	1458	Nil	Nil	NAD	Nil	Nil	Negative
14	1515	Nil	Nil	NAD	Nil	Nil	Negative
15	1542	Nil	Nil	NAD	Nil	Nil	Negative
16	1710	Nil	Nil	FPC	Nil	Nil	Negative
17	1781	Nil	Nil	NAD	Nil	Nil	Negative
18	1784	Nil	Nil	NAD	Nil	Nil	Negative
19	2246	Nil	Nil	NAD	Nil	Nil	Negative
20	2268	Nil	Nil	NAD	Nil	Nil	Negative

F.EC - Few Epithelial Cells, F.PC - Few Puscells, NAD - No Abnormal Defect

**Table shows report of 20 I.P Cases**

S. No	IP. No	Name of the Patient	Age	Sex	Date of Admission	Drug and dose	Date of Discharge	No.of Days	Results
1	1893	Mr.Gunabalan	53	M	21.04.05	Neeradimuthu Rasayanam - 500mg B.D Aadutheendai palai Vembu Thylam - 30ml (ext)	26.05.05	36	Fair
2	920	Mr.Muthupattan	65	M	25.04.05		08.05.05	14	Good
3	922	Mr.Sundaram	45	M	25.04.05		31.05.05	37	Fair
4	1003	Mrs.Subbulakshmi	45	F	03.05.05		01.06.05	30	Fair
5	1078	Mr.Maharajan	50	M	12.05.05		22.06.05	42	Fair
6	1145	Mr.Gurusamy	75	M	19.05.05		07.06.05	20	Good
7	1146	Mr.Santhanakumar	43	M	19.05.05		07.06.05	20	Poor
8	1360	Mr.Charles	44	M	13.06.05		02.07.05	20	Good
9	1019	Mr.Balaganeshan	22	M	17.04.07		03.05.07	17	Fair
10	1079	Mr.Krishanan	79	M	23.04.07		07.05.07	15	Poor
11	1144	Mrs.Muthammal	40	F	30.04.07		04.06.07	36	Fair
12	1422	Mr.Durairaj	51	M	29.05.07		19.06.07	22	Good
13	1458	Mrs.Meenakshi	45	F	01.06.07		12.06.07	12	Fair
14	1515	Mrs.RasoolBeevi	68	F	07.06.07		26.06.07	20	Fair
15	1542	Mr.Sekar	19	M	12.06.07		10.07.07	29	Fair
16	1710	Mr.Swaminathan	45	M	07.07.07		24.07.07	18	Fair
17	1781	Mrs.Rajee	50	F	11.07.07		24.07.07	14	Good
18	1784	Mrs.Thankammal	73	F	11.07.07		31.07.07	21	Good
19	2246	Mr.Shanmugam	60	M	06.09.07		21.09.07	16	Fair
20	2268	Mrs.Muthammal	62	F	08.09.07		25.09.07	18	Poor

## PREPARATION OF TRAIL DRUGS

### நீரிடிமுத்து இரசாயனம் (Internal medicine)

சுத்தித்த நீரிடிமுத்து பருப்பு	-	4 பலம் (140 gm)
சுத்தித்த சுக்கு	-	2 பலம் (70 gm)
சுத்தித்த நாட்டு அழுக்கரா	-	5 பலம் (175 gm)
சுத்தித்த பறங்கி சக்கை	-	5 பலம் (175 gm)
சுத்தித்த நன்னாரி வேர்	-	5 பலம் (175 gm)

இவைகளை தனித்தனியே , இடித்துச் சூரணம் செய்து, சலித்து இதனுடன் சமனளவு நாட்டு சர்க்கரை, தேவையான அளவு நெய் சேர்த்து இளகலாக பிசைந்து எடுத்து பத்திரப்படுத்திக் கொள்ளவும்.

**அளவு:** 500 mgm 2 வேளை.

**அனுபானம்:** நீர்

**தீரும் நோய்கள்:** தோலைப்பற்றிய பிணிகள் தீரும்.

**ஆதாரம்:** சித்த வைத்திய பதார்த்த குணவிளக்கம்

- கண்ணுசாமியம் பிள்ளை, பக்கம் -468

### Description of Drugs

#### நீரிடிமுத்து

வேறு பெயர்: மரவெட்டி

English name : Jangli almond

Botanical name : Hydnocarpus laurifolia

Family : Bixaceae

Parts used : seeds

**Organoleptic characters**

Suvai : kaippu

Thanmai : veppam

Pirivu : karppu

**Action :**

Alterative

Stimulant

Detergent

Parasiticide

”நீரிழுத்திற்கு நீங்காக் கிரந்தி குட்டம்

போரிடு வாதமு மேபோருங் காண் - காரடுக்கும்

மென்குழலாய் பித்தம் மிகுகனலம் உண்டாகும்

முன்கிளர் நமைச்சலறு முன்”

- அகத்தியர் குணவாகடம்

**Active principles:**

Generally known as chaulmoogra oil used extensively in the treatment of leprosy and other cutaneous diseases. It contains fatty acids namely chaulmoogric, hydnocarpic, gorlic and oleic. Hydnocarpus seeds have long seen used in south India as a remedy for leprosy, chronic skin diseases and dressing for wounds and ulcers.

- The wealth of India vol-V P.No; 142, 143

## நாட்டு அமுக்கராக் கிழங்கு

English name : Winter cherry

Family: Solanaceae

Botanical name: Withania somnifera

Parts used: Root

### Organoleptic characters

Suvai : kaippu

Thanmai : veppam

Pirivu : karppu

”கொஞ்சஞ் துவர்ப்பாங் கொடிய கயம் சூலையரி

மிஞ்சு கரப்பான் பாண்டு வெப்ப தப்பு - விஞ்சி

முகவறு தோடமும் போமோகம் அனலுண்டாம்

அசுவகந்திக் கென்றறி”

- அகத்தியர் குணவாகடம்

### Constituents:

#### Alkaloids:

Withanin, Somniferine, Cuscohygrine, Anahygrine, Tropine, Pseudotropine, Anaferine.

#### Free amino acids:

Aspartic acid, Glycine, Tyrosine, Alanine, Proline. Aswagandha is useful in the treatment of inflammatory conditions, ulcers and scabies.

- The wealth of India



## பறங்கிபட்டை

வேறு பெயர்: மதுஸ்மிகம்

English name : China root

Family: Liliaceae

Botanical name : Smilax china

Parts used: Root

## Organoleptic characters

Suvai : kaippu

Thanmai : Thatpam

Pirivu : karppu

## Actions:

Alterative

Antisyphilitic

Depurative

Aphrodisiac

“தாகம் பலவாதந் தாதுநட்டம் புண் பிளவை

மேகங் கடிகிரந்தி வீழ் மூலந் தேகமுடன்

குட்டை பகந்த மேற்கொள்வ மனம்போம் பறங்கிப்

பட்டையினை யுச்சரித்துப் பார்.

- குணபாடம் மூலிகை

## நன்னாரி

English name : Indian sarasapailla

Family : Asclepiadaceae

Botanical name : Hemidesmus indicus

**Organoleptic characters**

Suvai : Inippu, kaippu

Thanmai : thatpam

Pirivu : karppu

**Actions:**

Alterative

Tonic

Demulcent

Diuretic

Diaphoretic

**Active principles:**

It contains essential oil – 2hydroxy – 4 methoxy benzaldehyde, sitosterol, stigmasterol, sarsapic acid, ketone, fatty acids, saponin, tannin, resin acids. It is employed in nutritional disorders, syphilis, urinary diseases and skin diseases.

- The wealth of india

**சுக்கு**

English name : Dried ginger

Botanical name : Zingiber officinale

Family : Zingiberaceae

Parts used : root

## Organoleptic characters

Suvai : kaippu

Thanmai : veppam

Pirivu : karppu

## Constituents:

Volatile oil, starch, free amino acids like glutamic, aspartic, serine, glycine, theoronine, valine etc.,

Green ginger contains thiamine, riboflavin, niacin, vit c. Dried ginger contain an anti- histaminic factor.

## பசுவின் நெய் குணம்

“தாகமுழ லைசுட்கம் வாந்தி பித்தம் வாயுபிர

மேகம் வயிற்றெரிவு விக்கலழல் - மாகாசங்

குன்மம் வறட்சி குடற்புரட்ட லஸ்தி சுட்கஞ்

சொன்மூலம் போக்கு நிறைந்துப்பு ”

- பதார்த்த குண சிந்தாமணி

## சர்க்கரை குணம்:

அருந்து மருந்திற் கனுபான மாகப்

பொருந்து மடல் வாந்தி பித்தம் போக்கும் - அருந்தருசி

நீக்கு மதிகபத்தை நீற்றமகிழ்ச்சி யுண்

பாக்கு நறுஞ் சர்க்கரை

- அகத்தியர் குணவாகடம்

## ஆடுதீண்டபாளை வேம்பு தைலம் (External medicine)

1. ஆடுதீண்டபாளை சாறு - 500 மிலி
2. வேப்பெண்ணெய் - 500 மிலி

இவ்விரண்டையும் சமனளவு கலந்து, அடுப்பேற்றி, சாறு வற்றி நெய்  
பக்குவப்பட்டபின் இறக்கி தடவிவர தோல்கள் வெடித்து காணும் புடைகளும்,  
சிறுசிறு கொப்புளங்கள் கண்ட துர்நீர் பாயும் புண்களும், துட்டபுண்களும் நீங்கும்.  
ஆதாரம் - குணபாடம்- மூலிகை வகுப்பு பக்கம் 858

## Properties of the trial medicine

### ஆடுதீண்டா பாளை

English name : Indian birthwort

Botanical name : Aristolochia bracteolata

Family : Astritolochiaceae

### Organoleptic characters

Suvai : kaippu

Thanmai : veppam

Pirivu : karppu

### Action:

Anthelmintic

Emmenagogue

Purgative

Stimulant

”ஆடுதொடாப் பாளைக் ககக்கிருமி வன்சிலந்தி  
நீடுகருங் குட்டம் நிறைகரப்பான் - ஆடிச்செய்  
எண்பது வாய்வும் இகல்குட்ட முந்தீரும்  
திண்பெறுநற் றாதுவுமாஞ் செப்பு”

It contains aristolochic acid, a nitrophenone compound with tumour inhibiting properties.

### **வேப்பண்ணெய் - Neem oil**

Botanical name : Azadirachta indica

Family : Meliaceae

### **Organoleptic characters**

Suvai : kaippu

Thanmai : veppam

Pirivu : karppu

### **Action:**

stimulant

Antiseptic

Insecticide.

“வாதம்போம் பித்தமிகும் மாறாக்கி ரந்தியொடு  
மோதுகரப் பான் சிரங்கு முன்னிசிவும் - ஒதுடலின்  
நாப்ப ணுறுசுரமு நாடுசன்னியுந் தொலையும்  
வேப்பநெய் யென்றொருக்கால் விள்ளு”

**Constituents**

Fatty acids, glycerides, bitter principles like nimbedin, nimbidinin, nimbidic acid, azadrone, gedunin etc.,

The oil is a useful remedy in some chronic skin disease and ulcers. It possesses antiseptic and antifungal activity. Different preparation of nimbidin as an external application for the skin disorder showed good result.

- the wealth of india

# BIO-CHEMICAL ANALYSIS OF NEERADIMUTHU RASAYANAM

## Preparation of the Extract

5 gram of rasayanam was weighed accurately and placed in a 250 ml clean beaker, then 50ml of distilled water was added and dissolved well. Then it was boiled well for about 10 minutes. It was cooled and filtered in a 100ml volumetric flask and then it was diluted to 100ml with distilled water. This fluid was taken for analysis.

S.NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	<b><u>TEST FOR CALCIUM</u></b>  2ml of the above prepared extract was taken in a clean test tube. To this added 2 ml of 4% Ammonium oxalate solution was added.	No White precipitate was formed.	Absence of calcium.
2.	<b><u>TEST FOR SULPHATE:</u></b>  2ml of the extract was added to 5% barium chloride solution.	No white precipitate was formed.	Absence of sulphate.
3.	<b><u>TEST FOR CHLORIDE</u></b>  The extract was treated with silver nitrate solution.	A white precipitate was formed.	Indicates the presence of chloride.

4.	<b><u>TEST FOR CARBONATE</u></b> The extract was treated with concentrated HCL.	No brisk effervescence was formed.	Absence Of Carbonate.
5.	<b><u>TEST FOR STARCH</u></b> The extract was added with weak iodine solution.	No Blue colour was formed.	Absence of starch.
6.	<b><u>TEST FOR IRON FERRIC</u></b> The extract was treated with concentrated Glacial acetic acid and potassium ferro cyanide.	No blue colour was formed.	Absence of ferric iron.
7.	<b><u>FERROUS:</u></b> The extract was treated with concentrated Nitric acid and ammonium thio cyanate.	No Blood red colour was formed.	Absence of ferrous iron.
8.	<b><u>TEST FOR PHOSPHATE</u></b> The extract was treated with ammonium Molybdate and concentrated Nitric acid.	No yellow precipitate was formed.	Absence of phosphate.
9.	<b><u>TEST FOR ALBUMIN</u></b> The extract was treated with Esbach's reagent.	No yellow precipitate was formed .	Absence of Albumin.



10.	<b><u>TEST FOR TANNIC ACID</u></b> The extract was treated with ferric chloride.	No blue black precipitate is formed.	Absence of Tannic acid.
11.	<b><u>TEST FOR UNSATURATION</u></b> Potassium permanganate solution was added to the extract.	It gets decolourised.	Indicates the presence of unsaturated compound.
12.	<b><u>TEST FOR THE REDUCING SUGAR</u></b> 5ml of Benedict's qualitative solution was taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts.	Yellow precipitate was formed	Indicates the presence Reducing Sugar.
13.	<b><u>TEST FOR AMINO ACID:</u></b> One or two drops of the extract was placed on a filter paper and dried it well. After drying, 1% Ninhydrin was sprayed over the same and dried it well.	Violet colour was formed	Indicates the presence of Amino acid.

# **ANTI-HISTAMINIC EFFECT OF NEERADI MUTHU RASAYANAM ON ISOLATED ILEUM OF GUINEA PIG**

## **Aim:**

To study the Anti-histaminic effect of **Neeradi muthu rasayanam**

## **PREPARATION OF TEST DRUG:**

1 gm of **Neeradi muthu rasayanam** dissolved in 10 ml of distilled water and mixed well.

## **SOLUTION REQUIRED:**

Histamine (1 in 1, 00,000 strength)

## **PROCEDURE:**

A guinea pig weighing about 450 gms was starved for 48 hrs and only water was allowed. It was killed by stunning with a sharp blow on the head and cutting its throat to bleed it, to death. The abdomen was quickly opened and the viscera inspected and loops of intestine identified. Use the patch as a landmark the ileum was removed and placed in a shallow dish containing warm "Tyrode solution", the lumen of the ileum was gently rinsed out with saline. It was cut into segments of required length, generally 4 cm, in the fully relaxed state and the sutures were made with needle and tied at either ends and segment is suspended in an isolated organ bath. It was aerated by an oxygen tube and immersed in Tyrode solution at 37°C. Drugs were given to study the inhibitory effect of histamine induced contractions.

## **INFERENCE:**

The test drug has **Anti-Histaminic action**.

# **ACUTE ANTI-INFLAMMATORY STUDY ON AADUTHEENDA PALAI**

## **SEMBU THYLAM (EXTERNAL USE)**

### **BY HIND-PAW METHOD IN ALBINO RATS**

#### **Aim:**

To study the acute Anti-inflammatory activity of the test drug-  
**Aadutheenda palai vembu thylam.**

#### **PREPARATION OF THE TEST DRUG:**

The thylam was prepared as per the Gunapadam mooligai vaguppu and described in annexure.

#### **PROCEDURE:**

Nine healthy albino rats weighing 100-150 gm were taken and divided into three groups, each consisting of 3 rats.

First group was kept as control by giving distilled water of 2 ml/100 gm of body weight. The second group was given Ibuprofen at a dose of 20 mg/100 gm of body weight. The third group was kept as test group.

Before the administration of the test drug the hind-paw volumes of all rats were measured. This was done by dipping the hind-paw (up to tibio-tarsal junction) into a mercury plethysmograph. While dipping the hind-paw by pulling the syringe piston, the level of mercury in the center small tube was made to coincide with red marking and reading was noted from the plethysmograph.

Soon after the measurement, the drug was administered to the rats, a subcutaneous injection of 0.1ml of 1% (W/V) carrageenin in water was made into

plantar surface of both hind paw of each rat. To the third (test) group Aadutheenda palai vembu thylam was topically applied for three times over the inflamed surface in a thin layer within half an hour gap.

One and half-hours after injection the hind-paw volume was measured once again. The difference between the initial and final volume would show the amount of inflammation. Taking the volume in the control group as 100% inflammation, anti-inflammatory effect of the test group is calculated

<b>ACUTE ANTI INFLAMMATORY STUDIES</b>					
<b>DRUG : AADUTHEENDA PALAI VEMBU THYLAM</b>					
<b>S.No</b>	<b>Group Drug</b>	<b>Dose/ 100gm bw</b>	<b>Mean Diff</b>	<b>% Inf</b>	<b>% Inh</b>
1.	Control –water	2ml	0.68	100	Nil
2.	Standard – Ibu profen	20 mg	0.67		98.52
3.	Test Drug - Aadutheendapalai vembu thylam	Ext	0.43	63.23	36.77

**Inference:**

The drug has **Moderate Anti-Inflammatory Action.**

# PHARMACOLOGICAL ANALYSIS

## ACUTE ANTI INFLAMMATORY ACTIVITY IN RATS BY HIND

### PAW METHOD

#### AIM :

To demonstrate the acute anti-inflammatory activity of **Neeradimuthu Rasayanam** in albino rats by Hind Paw Method.

#### PREPARATION OF THE TEST DRUG :

1gm of **Neeradimuthu Rasayanam** was suspended in 10 ml of water. From the above test drug 2 ml was administered orally. 1 ml contain 100 mg of **Neeradimuthu Rasayanam**.

#### PROCEDURE :

Six albino rats weighting 100-150 gm were taken and divided into three groups and each group consisting 2 rats.

First group was kept as control and received water. Second group received Ibuprofen at a dose of 20mg/100 gm body weight. Third group of animals received **Neeradimuthu Rasayanam**.

Before administration of drugs, the hind paw volume of all rats was measured. This was done by dipping the hind paw up to the tibio tarsal junction in a mercury plethysmograph. Soon after the measurement the drug was administered.

One hour after the administration of drug a sub cutaneous injection of 0.1ml of 1% w/v of carrageenin in water was made into plantar surface of both the hind paw of each rat.

Three hours after carrageenin injection, the hind paw volume was measured once again. Difference between the initial and final value were noted and compared.

The method is more suitable for studying anti inflammatory activity on acute inflammation.

The result of the drug is compared with the standard as well as control group.

S.No	Group	Dose/100mg body weight	Mean difference	Percentage of inflammation	Percentage of inhibition
1.	Control	Water 2 ml	0.68	100	Nil
2	Standard	Ibuprofen 20 mg	0.67	-	98.52
3	Test	Neeradimuthu Rasayanam	0.53	77.94	22.06

#### **INFERENCE :**

From the above experiment it is observed that the test drug **Neeradimuthu Rasayanam** has **Mild Anti Inflammatory Action**.

**GOVERNMENT SIDDHA MEDICAL COLLEGE HOSPITAL,  
PALAYAMKOTTAI  
POST GRADUATE – SIRAPPU MARUTHUVAM DEPARTMENT  
(P.G.III)**

**AN OPEN TRIAL OF SIDDHA TREATMENT**

**DISEASE: KALANJAH PADAI**

**DRUG: INTERNAL : NEERADIMUTHU RASAYANAM**

**EXTERNAL: AADUTHEENDAPALAI VEMBU THYLAM**

1. O.P NO: ----- 2. BED NO: ----- 3. S.NO:

4. NAME: ----- 5. AGE (yr)  6. GENDER:  M  F

7. OCCUPATION: -----

8. POSTAL ADDRESS

---

---

---

---

9. COMPLAINTS AND DURATION

---

---

---

---

---

10. HISTORY OF PRESENT ILLNESS

---

---

---

---

---

11. PAST HISTORY

---

---

---

---

12. FAMILY HISTORY: 1.NO ☐ 2. YES ☐

---

13. MENSTRUAL HISTORY:

1. N.A ☐ 2. Not attained puberty ☐ 3. Menstrual cycle-Regular ☐

4. Menstrual cycle-Irregular ☐ 5 . Attained Menopause ☐

**HABITS**

	Yes(1)	No (2)
14.Smoker	<input type="checkbox"/>	<input type="checkbox"/>
15.Alcoholic	<input type="checkbox"/>	<input type="checkbox"/>
16.Betelnut chewer	<input type="checkbox"/>	<input type="checkbox"/>
17. Non-vegetarian	<input type="checkbox"/>	<input type="checkbox"/>

**GENERAL EXAMINATION**

18. Body weight [kg]	<input type="text"/> <input type="text"/>
19. Body temperature [°F]	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
20. Blood pressure (mmHg)	<input type="text"/> <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/>
21. Heart rate / min.	<input type="text"/> <input type="text"/> <input type="text"/>
22. Respiratory rate /min	<input type="text"/> <input type="text"/> <input type="text"/>
23. Pulse rate /min.	<input type="text"/> <input type="text"/> <input type="text"/>

	(1) Yes	(2) No
24. Pallor	<input type="checkbox"/>	<input type="checkbox"/>
25. Jaundice	<input type="checkbox"/>	<input type="checkbox"/>
26. Clubbing	<input type="checkbox"/>	<input type="checkbox"/>
27. Cyanosis	<input type="checkbox"/>	<input type="checkbox"/>
28. Pedal edema	<input type="checkbox"/>	<input type="checkbox"/>
29. Lymphadenopathy	<input type="checkbox"/>	<input type="checkbox"/>
30. Engorged veins	<input type="checkbox"/>	<input type="checkbox"/>



## CLINICAL EXAMINATION OF SKIN

31.SITE : \_\_\_\_\_

32.COLOUR:    1.Normal ☐    2.Reddish ☐    3. Black ☐  
                    4. Silvery ☐

33.SIZE OF LESION (Length cm) :

\_\_\_\_\_

34.SHAPE:        1. Round ☐    2. Coined ☐ 3. Diffused ☐

35.ITCHING:      1. No ☐    2. Mild ☐ 3. Moderate ☐ 4. Severe ☐

36.ERYTHEMA:        1. Present ☐        2. Absent ☐

37.SCALING:         1. Present ☐        2. Absent ☐

38.BLEEDING: 1. No ☐    2. Mild ☐    3. Moderate ☐    4. Severe ☐

	Yes (1)	No (2)
39.PUSTULE :	<input type="checkbox"/>	<input type="checkbox"/>

40.PAPULE :	<input type="checkbox"/>	<input type="checkbox"/>
-------------	--------------------------	--------------------------

41.MACULE :	<input type="checkbox"/>	<input type="checkbox"/>
-------------	--------------------------	--------------------------

42.PIGMENTATION: 1. No ☐    2. Hypo ☐    3. Hyper ☐

43.SENSATION:        1. Normal ☐    2. Anaesthetic ☐    3. Hyperaesthetic ☐

44.CANDLE GREASE SIGN : 1. Present ☐    2. Absent ☐

45.AUSPITZ SIGN : 1. Present ☐        2. Absent ☐

46.KOEBNER'S PHENOMENON: 1. Present ☐    2. Absent ☐

## EXAMINATION OF VITAL ORGANS

	(1) Normal	(2) Abnormal	
47.CVS	<input type="checkbox"/>	<input type="checkbox"/>	.....
48.RS	<input type="checkbox"/>	<input type="checkbox"/>	.....
49.ABDOMEN	<input type="checkbox"/>	<input type="checkbox"/>	.....

## SIDDHA ASPECTS

### 50.NILAM

1. Kurinji ☐ 2. Mullai ☐ 3. Marutham ☐ 4. Neithal ☐ 5. Palai ☐

### 51.KAALA IYALBU

1. Kaarkaalam ☐ 2. Koothirkaalam ☐ 3. Munpanikaalam ☐  
4. Pinpanikaalam ☐ 5. Ilavenirkaalam ☐ 6. Muduvenirkaalam ☐

### 52.UDAL IYALBU

1. Vatham ☐ 2. Vatha pitham ☐ 3. Vatha kabam ☐  
4. Pitham ☐ 5. Pitha vatham ☐ 6. Pitha kabam ☐  
7. Kabam ☐ 8. Kaba vatham ☐ 9. Kaba pitham ☐

### 53.GUNAM

1. Sathuvam ☐ 2. Raasatham ☐ 3. Thamasam ☐

## AYMPORIGAL

	(1) Normal	(2) Affected	
54.Mei	<input type="checkbox"/>	<input type="checkbox"/>	.....
55.Vaai	<input type="checkbox"/>	<input type="checkbox"/>	.....
56.Kan	<input type="checkbox"/>	<input type="checkbox"/>	.....
57.Mookku	<input type="checkbox"/>	<input type="checkbox"/>	.....
58.Sevi	<input type="checkbox"/>	<input type="checkbox"/>	.....

## KANMENDHIRIUM / KANMAVIDAYAM

	(1) Normal	(2) Affected	
59.Kai	<input type="checkbox"/>	<input type="checkbox"/>	.....
60.Kaal	<input type="checkbox"/>	<input type="checkbox"/>	.....
61.Vaai	<input type="checkbox"/>	<input type="checkbox"/>	.....
62.Eruvaai	<input type="checkbox"/>	<input type="checkbox"/>	.....
63.Karuvaai	<input type="checkbox"/>	<input type="checkbox"/>	.....

## UYIR THAATHUKKAL

### VAATHAM

	(1) Normal	(2) Affected	
64.Pranan	<input type="checkbox"/>	<input type="checkbox"/>	.....
65.Abanan	<input type="checkbox"/>	<input type="checkbox"/>	.....
66.Viyanan	<input type="checkbox"/>	<input type="checkbox"/>	.....
67.Uthanan	<input type="checkbox"/>	<input type="checkbox"/>	.....
68.Samanan	<input type="checkbox"/>	<input type="checkbox"/>	.....
69.Nagan	<input type="checkbox"/>	<input type="checkbox"/>	.....
70.Koorman	<input type="checkbox"/>	<input type="checkbox"/>	.....
71.Kirukaran	<input type="checkbox"/>	<input type="checkbox"/>	.....
72.Devathathan	<input type="checkbox"/>	<input type="checkbox"/>	.....
73.Dhananjeyan	<input type="checkbox"/>	<input type="checkbox"/>	.....

### PITTHAM

	(1) Normal	(2) Affected	
74.Analagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
75.Ranjagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
76.Sathagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
77.Alosagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
78.Prasagam	<input type="checkbox"/>	<input type="checkbox"/>	.....

## KABAM

	(1) Normal	(2) Affected	
79.Avalambagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
80.Kiletham	<input type="checkbox"/>	<input type="checkbox"/>	.....
81.Pothagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
82.Tharpagam	<input type="checkbox"/>	<input type="checkbox"/>	.....
83.Santhigam	<input type="checkbox"/>	<input type="checkbox"/>	.....

## UDAL THAATHUKKAL

	(1) Normal	(2) Affected	
84.Saaram	<input type="checkbox"/>	<input type="checkbox"/>	.....
85.Senneer	<input type="checkbox"/>	<input type="checkbox"/>	.....
86.Oon	<input type="checkbox"/>	<input type="checkbox"/>	.....
87.Kozhuppu	<input type="checkbox"/>	<input type="checkbox"/>	.....
88.Enbu	<input type="checkbox"/>	<input type="checkbox"/>	.....
89.Moolai	<input type="checkbox"/>	<input type="checkbox"/>	.....
90.Sukkilam / Suronitham	<input type="checkbox"/>	<input type="checkbox"/>	.....

## ENVAGAI THERVUGAL

91.Naa			.....
92.Niram	<input type="checkbox"/>	<input type="checkbox"/>	.....
93.Mozhi	<input type="checkbox"/>	<input type="checkbox"/>	.....
94.Vizhi	<input type="checkbox"/>	<input type="checkbox"/>	.....
95.Sparisam	<input type="checkbox"/>	<input type="checkbox"/>	.....
96.Naadi			

- |           |                          |                 |                          |                |                          |
|-----------|--------------------------|-----------------|--------------------------|----------------|--------------------------|
| 1. Vatham | <input type="checkbox"/> | 2. Vatha pitham | <input type="checkbox"/> | 3. Vatha kabam | <input type="checkbox"/> |
| 4. Pitham | <input type="checkbox"/> | 5.Pitha vatham  | <input type="checkbox"/> | 6. Pitha kabam | <input type="checkbox"/> |
| 7. Kabam  | <input type="checkbox"/> | 8. Kaba vatham  | <input type="checkbox"/> | 9. Kaba pitham | <input type="checkbox"/> |

## MALAM

	(1) Normal	(2) Affected	
	Yes (1)	No (2)	
97.Niram	<input type="checkbox"/>	<input type="checkbox"/>	.....
98.Nurai	<input type="checkbox"/>	<input type="checkbox"/>	.....
99.Kirumi	<input type="checkbox"/>	<input type="checkbox"/>	.....
100. Kalappu	<input type="checkbox"/>	<input type="checkbox"/>	.....
101. Erugal	<input type="checkbox"/>	<input type="checkbox"/>	.....
102. Elagal	<input type="checkbox"/>	<input type="checkbox"/>	.....

## MOOTHIRAM

### Neerkuri

	(1) Normal	(2) Affected	
103. Niram	<input type="checkbox"/>	<input type="checkbox"/>	.....
104. Manam	<input type="checkbox"/>	<input type="checkbox"/>	.....
105. Edai	<input type="checkbox"/>	<input type="checkbox"/>	.....
106. Nurai	<input type="checkbox"/>	<input type="checkbox"/>	.....
107. Enjal	<input type="checkbox"/>	<input type="checkbox"/>	.....

**Neikuri** 1. Vaatha Neer ☐ 2. Pittha Neer ☐ 3. Kaba Neer ☐

---

## LAB INVESTIGATIONS

### BLOOD

108. TC (cells/ cu.m.m)

DC (%): 109N.  110.L  111.M  112.E  113.B

114. ESR (mm)  $\frac{1}{2}$  Hr  115. ESR (mm): 1 Hr:

116. Hb (g %)  .

Blood Sugar (mg%) : 117. Fasting  .

118 Post-prandial

119 Random

120. Blood Urea (mg%) :

121. Serum Creatinine :

122. Blood Cholesterol (mg%) :

### URINE

123. Albumin - 0.Nil  1.+  2.++  3.+++

124. Sugar - 0.Nil  1.+  2.++  3.+++

Deposit:	Present (1)	Absent (2)
125. Pus cells	<input type="text"/>	<input type="text"/> _____
126. Epithelial cells	<input type="text"/>	<input type="text"/> _____
127. Red blood cells	<input type="text"/>	<input type="text"/> _____
128. Casts/ Crystal	<input type="text"/>	<input type="text"/> _____

<b>MOTION</b>	<b>Present (1)</b>	<b>Absent (2)</b>
129. Ova	- <input type="checkbox"/>	<input type="checkbox"/> _____
130. Cyst	- <input type="checkbox"/>	<input type="checkbox"/> _____
131. Occult blood -	<input type="checkbox"/>	<input type="checkbox"/> _____
132. Pus cells	- <input type="checkbox"/>	<input type="checkbox"/> _____

**Drug issued for patients.**

133. No. of vadagam:

134. Volume of Thylam (ml) :

135. Date: \_\_\_\_\_ 136. Signature of Doctor: \_\_\_\_\_

137. Station: \_\_\_\_\_ 138. Signature of H.O.D: \_\_\_\_\_

## BIBLIOGRAPHY

1. Agasthiar Guna Vagadam
  2. Agasthiar Kanma Kandam
  3. Agasthiar Paripooranam – 400
  4. Agasthiar Vaidhya Kaviyam – 1500
  5. Dermatology in General Medicine –  
Thomas B Fitzpatrick  
Arthur Z. Eisen  
Klaus Wolff
  6. Gunapadam – Mooligai
  7. Dr.K.M.Nadkarni's Indian Materia Medica
  8. Noi Naadal Vol.I
  9. Patharatha Guna Chinthamani
  10. Roxburgh's Common Skin Diseases – Ronald Marks
  11. Siddha Maruthuvam Part I - Dr.Kuppusamy Mudaliar
  12. Siddha Maruthuvam Sirappu – Dr.R.Thiyagarajan
  13. Siddha Maruthuvanga Churukkam
  14. Siddhar Aruvai Maruthuvam - Dr.Uthma Rayan
  15. Siddha Vaithya Pathartha Guna Vilakkam – Kannasamiyam pillai
  16. Text book of Dermatology – BHEL
  17. Thirukkural
  18. Thirummoolar Vaidhyam 600
  19. Udal Thathuvam
  20. Wealth of India
  21. Yugi Vaidhya Chinthamani
- Websites:**
22. Psoriasis net.org
  23. Psoriasis.org



# ACKNOWLEDGEMENT

*Lord Almighty! I thank you for the gift of life and the showers of blessings showered on me to complete this dissertation work, also I thank you for your constant heart fully intercession throughout my life.*

*The author extends her thanks to the **Vice-Chancellor**, the TamilNadu Dr.M.G.R. Medical University, Chennai, **The Commissioner of Indian System of Medicine and Homeopathy**, Chennai.*

*The author expresses her great sense of gratitude to the Principal **DR.M.Thinakaran M.D(s)** Government Siddha Medical College, Palayamkottai for the valuable guidance given by him in this dissertation work.*

*The author is thankful to **Dr.R.Devarajan M.D(s)**, Vice Principal, Government Siddha Medical College for his support regarding this studies.*

*The author expresses her cordial thanks to **Dr.K.Somasekaran M.D(s)**, Head of the Department, Post Graduate Department of Sirappu Maruthuvam, Government Siddha Medical College, Palayamkottai for his whole hearted admiration and inspiration of this study.*

*The author is very much thankful to **Dr.K.Saibudeen M.D(s)** Lecturer, Post Graduate Department of Sirappu Maruthuvam, Government Siddha Medical College, Palayamkottai for his guidance with his precious experiences.*

*The author is very much grateful to **Dr.S.Ramaguru, M.S(ortho)** Professor of Orthopaedics, Government Siddha Medical College, Palayamkottai for his valuable guidance in this study.*

*The author expresses her heartfelt thanks to **Mr.Kalaivanan M.Sc.,** Head of the Department of Pharmacology, Government Siddha Medical College, Palayamkottai for his support in the pharmacological aspect of this dissertation work.*

*The author would like to thank **Prof.N.Naga Prema, M.Sc.,** Head of the Department of Biochemistry, Government Siddha Medical College, Palayamkottai.*

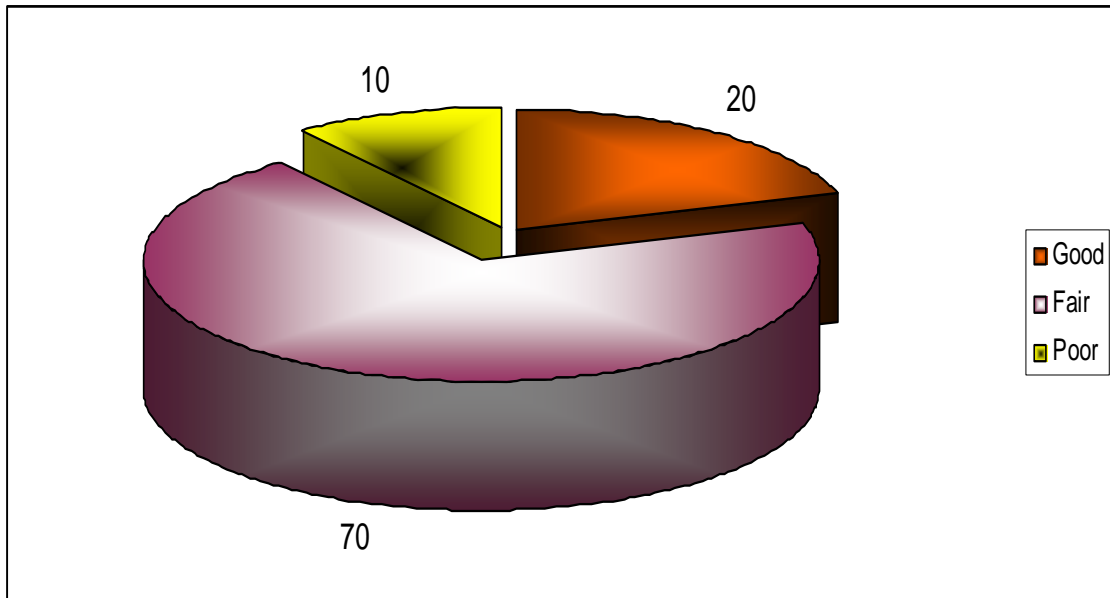
*The author express her gratitude to the Librarian **Mrs.Poonkodi M.A., B.LIS.,** Government Siddha Medical College, Palayamkottai for fetching books for reference whenever required.*

*I am indebted to **Mr.J.Andrews Milton MPT** for his good wishes, encouragement and guidance.*

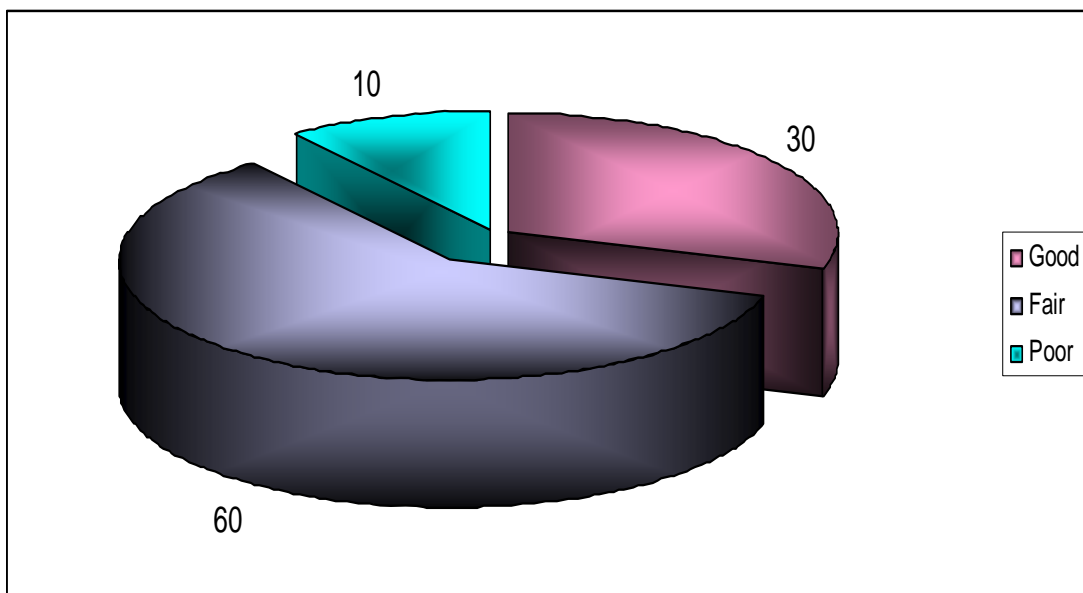
*Lastly but not leastly the author is very much grateful to **Broad Band Net Cafe , Palayamkottai** for their great effort in bringing out this Dissertation work in an excellent format.*

*This part of the dissertation will be incomplete if the forgets to thanks to her patients for their cooperation.*

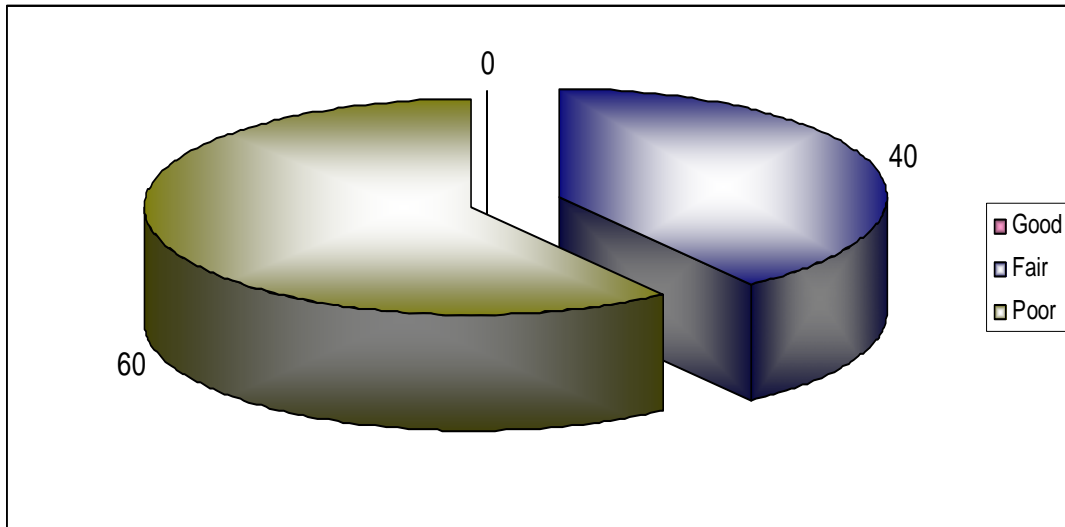
### Results IP Patients



### Results OP Patients treated with both Internal and External medicines



### Results OP Patients treated with Internal medicine



### Results OP Patients treated with External medicine

